

# TOLL BRIDGE PROGRAM OVERSIGHT COMMITTEE MEETING MATERIALS

June 3, 2010

CALTRANS

BAY AREA TOLL ALITHORITY

CALIFORNIA TRANSPORTATION COMMISSION

















#### Letter of Transmittal

**DATE:** May 26, 2010

**TO:** Toll Bridge Program Oversight Committee

(TBPOC)

FR: Program Management Team (PMT)

**RE:** TBPOC Meeting Materials Packet – June 3, 2010

Herewith is the <u>TBPOC Meeting Materials Packet</u> for the June 3<sup>rd</sup> meeting. The packet includes memoranda and reports that will be presented at the meeting. A <u>Table of Contents</u> is provided following the <u>Agenda</u> to help locate specific topics.



#### **TBPOC MEETING**

June 3, 2010, 10:00am – 12:00pm

Mission Bay Office, 325 Burma Road, Oakland, CA TBPOC - PMT pre-briefing, 10:00am - 11:00am

**TBPOC** meeting, 11:00am – 12:00pm **TBPOC** field tour, 12:00pm – 2:00pm

	Topic	Presenter	Time	Desired Outcome
1.	CHAIR'S REPORT	S. Heminger, BATA	5 min	Information
2.	CONSENT CALENDAR			
	a. TBPOC Meeting Minutes:	A E . DATEA		
	1) May 6, 2010 Meeting Minutes*	A. Fremier, BATA	2 min	Approval
	b. Contract Change Orders (CCOs):			
	1) Yerba Buena Island Detour CCO 1-S6 (Maintain Traffic)*	D. Noel, CTC	5 min	Approval
3.	PROGRESS REPORTS			
	<ul><li>a. Draft Project Progress and Financial Update May 2010**</li></ul>	A. Fremier, BATA	3 min	Approval
4.	PROGRAM ISSUES			
	a. West Approach Landscaping PS&E*	K. Terpstra, CT	5 min	Information
5.	SAN FRANCISCO-OAKLAND BAY BRIDGE UPDATES			
	<ul><li>a. Self-Anchored Suspension (SAS) Superstructure</li><li>1) Update</li></ul>	B. Maroney, CT	10 min	Information
	2) Mr. Kang, ZPMC, Visit to Bay Area	PMT	5 min	Information
	b. Yerba Buena Island Detour			
	1) Update	B. Maroney, CT	5 min	Information
	<ul><li>c. Yerba Buena Island Transition Structures No. 1</li><li>1) Update</li></ul>	B. Maroney, CT	5 min	Information
	d. Oakland Touchdown No. 1			
	1) Update	B. Maroney, CT	5 min	Information
6.	DUMBARTON/ ANTIOCH BRIDGE RETROFIT UPDATE			
	a. Dumbarton Bridge Addendum #2*	J. Weinstein, BATA	5 min	Approval
	b. Antioch Bridge Update*	M. Pazooki, CT J. Weinstein, BATA M. Pazooki, CT	5 min	Information
7.	OTHER BUSINESS			
	Novi TDDOC Mosting, July 9, 90	10.10.00	<u> </u>	

Next TBPOC Meeting: July 8, 2010, 10:00am – 1:00pm Mission Bay Office, Oakland, CA

<sup>\*</sup>Attachments

<sup>\*\*</sup>Stand-alone document included in the binder

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#### **TBPOC MEETING** June 3, 2010

	June 3, 2010			
INDEX TAB	AGENDA ITEM	DESCRIPTION		
1	1	CHAIR'S REPORT		
2	2	a. TBPOC Meeting Minutes 1) May 6 2010 Meeting Minutes*  b. Contract Change Orders (CCOs) 1) Yerba Buena Island Detour CCO 1-S6 (Maintain Traffic)*		
3	3	PROGRESS REPORTS  a. Draft Project Progress and Financial Update May 2010**		
4	4	PROGRAM ISSUES a. West Approach Landscaping PS&E*		
5	5	<ul> <li>SAN FRANCISCO-OAKLAND BAY BRIDGE UPDATES</li> <li>a. Self-Anchored Suspension (SAS) Superstructure <ol> <li>Update</li> <li>Mr. Kang, ZPMC, Visit to Bay Area</li> </ol> </li> <li>b. Yerba Buena Island Detour <ol> <li>Update</li> </ol> </li> <li>b. Yerba Buena Island Transition Structures No. 1 <ol> <li>Update</li> </ol> </li> <li>c. Oakland Touchdown No. 1 <ol> <li>Update</li> </ol> </li> </ul>		
6	6	DUMBARTON/ ANTIOCH BRIDGE RETROFIT UPDATE  a. Dumbarton Bridge Addendum #2*  b. Antioch Bridge Update*		
7	7	OTHER BUSINESS		

<sup>\*</sup>Attachments \*\*Stand-alone document included in the binder

# ITEM 1: CHAIR'S REPORT

No Attachments



#### Memorandum

TO: Toll Bridge Program Oversight Committee DATE: May 26, 2010

(TBPOC)

FR: Andrew Fremier, Deputy Executive Director, BATA

RE: Agenda No. - 2a1

Consent Calendar

Item- TBPOC Meeting Minutes

May 6, 2010 Meeting Minutes

#### Recommendation:

**APPROVAL** 

#### **Cost:**

N/A

#### **Schedule Impacts:**

N/A

#### Discussion:

The Program Management Team has reviewed and requests TBPOC approval of the May 6, 2010 Meeting Minutes.

#### Attachment(s):

May 6, 2010 Meeting Minutes



# TOLL BRIDGE PROGRAM OVERSIGHT COMMITTEE

CALTRANS BAY AREA TOLL AUTHORITY CALIFORNIA TRANSPORTATION COMMISSION

#### **MEETING MINUTES**

May 6, 2010, 2:00 PM – 5:00 PM
Director's Conference Room, 1120 N Street, Sacramento, CA
TBPOC-PMT pre-briefing, 2:00 PM – 3:00 PM
TBPOC meeting, 3:00 PM – 5:00 PM

**Attendees**: TBPOC Members: Steve Heminger, Bimla Rhinehart, and Cindy McKim

<u>PMT Members</u>: Tony Anziano, Andrew Fremier, and Stephen Maller <u>Participants</u>: Michele DiFrancia, Mike Forner, Ted Hall, Steven Hulsebus, Beatriz Lacson, Rick Land, Peter Lee, Bridget Lott, Brian Maroney, Dan McElhinney, Dina Noel, Sean Nozzari, Gary Pursell, Bijan Sartipi, Saeed Shahmirzai, Pete Siegenthaler, Jon Tapping, Ken Terpstra, and Jason Weinstein

**Part-Time Participants** 

ABF: Mike Flowers, Doug Fuller, Don Jones, Thomas Nilsson, Brian Petersen,

and Peter Vanderwaart

TYL/M&N: Scott Buckley, Marwan Nader, and Bob Nichol

Convened: 3:07PM

	Items	Action
1.	<ul> <li>CHAIR'S REPORT</li> <li>S. Heminger, the Chair, welcomed Caltrans Chief Deputy Director Cindy McKim to the TBPOC meeting.</li> <li>The Chair mentioned the April 25 CBS 60 Minutes television program segment on the SFOBB East Span Replacement Project, "Competing Against Time".</li> </ul>	
2.	<ul> <li>TBPOC / ABF / TYLMN Discussion</li> <li>a. SAS Mitigation and Acceleration Update</li> <li>1) ABF Acceleration Status Report and Cost Estimate</li> <li>• The Chair noted the ABF update of their November 2009 schedule (handed earlier to the TBPOC) as unacceptable from the Owner's point of view, expressed disappointment with the dates, and described the document as a significant step</li> </ul>	

	Items	Action
	backward.	Action
	backwai u.	
•	<ul> <li>M. Flowers gave a slide presentation covering "ZPMC Delivery Dates TBPOC Handout – May 6, 2010", "Shop Drawing Release Status", and "Shop Drawing Release Process".</li> <li>Predictable and unpredictable areas were pointed out, with issues and risks explained.</li> <li>The updated schedule footnote for lifts 13 and 14 as "best guess" was confirmed as such.</li> <li>With reference to ABF providing a schedule for the resolution of the seismic safety opening (formerly referred to as the "soft opening") on July 8, M. Flowers indicated they would need to get back to ZPMC regarding drawing revisions and ensure a smooth path to fabrication before a schedule can be confirmed.</li> <li>M. Flowers emphasized that a very strong team is hard at work fixing the problems and resolving issues. He noted that the project has already benefitted from the constructability models.</li> </ul>	
•	The Chair thanked ABF and indicated that he intends to follow up with B. Luffy (American Bridge CEO) and P. Flaherty (Fluor SVP).	
2)	TBPOC China Trip (see item 2a3)	
3)	Shanghai Expo Items 2a2 and 2a3 above were discussed concurrently.	
•	<ul> <li>T. Anziano confirmed participation in the Shanghai Expo.</li> <li>Preparations with the San Francisco-Shanghai Sister City and Urban Best Practices</li> </ul>	

Items	Action
organizations are going well.  The team is working on securing corporate sponsorships.  K. Terpstra summarized the Expo events on June 19 (Gala Dinner) and June 20 (Transportation Day Program) which the TBPOC should consider attending.	
<ul> <li>A potential June TBPOC trip to China to meet with ZPMC and attend the Shanghai Expo was discussed.</li> <li>The PMT recommended the TBPOC going to China in June in order to provide leverage and influence into the fabrication process, prior to the ABF/ZPMC meeting in July.</li> <li>B. Rhinehart and C. McKim stated that it was not timely for the two of them to make a trip to China in June.</li> <li>The Chair noted there is a case to be made to convey our view to ZPMC. B. Rhinehart and C. McKim concurred with the Chair making the trip as a representative of BATA/TBPOC.</li> </ul>	• T. Anziano to coordinate with ABF/ZPMC about a TBPOC trip to China. The PMT to develop an itinerary by the TBPOC June 3 meeting.
<ul> <li>CONSENT CALENDAR <ul> <li>a. TBPOC Meeting Minutes</li> <li>1) April 1, 2010 Meeting Minutes</li> <li>2) April 12, 2010 Conference Call Minutes</li> </ul> </li> <li>b. Contract Change Orders (CCOs) <ul> <li>1) CCO 119-S3 (Yerba Buena Island Detour - Storm Water Pollution</li> </ul> </li> </ul>	• The TBPOC <b>APPROVED</b> items a1, a2, b1, and b4 of the Consent Calendar, as presented.
Prevention Plan - SWPPP), \$600,000  2) CCO 127 (SAS East End Mitigation), in the amount not to exceed \$4,300,000 to pay the contractor to fabricate full scale constructability	<ul> <li>Items b2 and b3 were removed from the Consent Calendar for discussion.</li> </ul>

	<b>T</b> .	A 1*
	Items Clife 10	Action
	models of critical areas of lifts 13 and	
	14 for the orthotropic box girders	
	(the East End OBG), and to pay for	
	all the technical support needed to	
	engineer, detail, and build the	
	prototype models.	
	3) CCO 139 (SAS East End Mitigation,	
	Shop Space and Various) in an	
	amount not to exceed \$17,000,000,	
	to mitigate further East End	
	fabrication delays.	
	· · · · · · · · · · · · · · · · · · ·	
	T. Anziano noted that language  (which he mod) not included in the	
	(which he read) not included in the	
	drafts for CCO's 127 and 139, has	
	been added and found acceptable by	
	ABF.	ml mppog 4 ppp 02:
	<ul> <li>The PMT recommended proceeding</li> </ul>	• The TBPOC <b>APPROVED</b>
	with these CCO's so as not to lose	CCO's 127 and 139 with
	time and mitigation opportunities.	amended language.
	4) CCO 110-SO (1) SAS Mechanical,	
	Electrical and Piping (MEP),	
	\$4,916,210; (2) System-wide	
	corridor testing - amount not to	
	exceed \$5,400,000.	
4	DDOCDAM ICCLIEC	
4.	PROGRAM ISSUES	
	a. Draft 2010 First Quarter Risk	
	Management Report	
	<ul> <li>J. Tapping gave a Risk Management</li> </ul>	
	Briefing, for TBPOC information,	
	covering "Q1 2010 Adequacy of	
	Reserves", "Schedule Recovery	
	Responses & Cost Assessment" and	
	"Look Ahead to Q2 2010".	
	<ul> <li>The team is meeting with ABF</li> </ul>	
	tomorrow re lifts 13 and 14, to	
	develop jointly a schedule with	
	mitigation for presentation to the	
	TBPOC, and to determine other	
	mitigation opportunities.	
5.	PROGRESS REPORTS	
J.		
	a. Draft 2010 First Quarter Project	
	Progress and Financial Update March	
<u> </u>	2010	

	Items	Action
		• The TBPOC <b>APPROVED</b> the
	A. Fremier presented, for TBPOC  approval, the Dreft 2010 First.	
	approval, the Draft 2010 First	Draft 2010 First Quarter
	Quarter Project Progress and	Project Progress and Financial
	Financial Update.	Update with discussed
	o Draft Version 6.0 was handed out.	revisions.
	P. Lee summarized the changes	
	made in this version.	
	o Revisions to the schedule summary	
	on page 7 were discussed, i.e., keep	
	the 4th Quarter 2009 approved	
	schedule and approve the forecast	
	revisions on the draft; change	
	completion forecast (column J) for	
	Antioch to May 2012; and show red	
	for Eastbound Open in column L.	
6.	SAN FRANCISCO-OAKLAND BAY	
	BRIDGE (SFOBB) UPDATES	
	a. Yerba Buena Island Detour (YBID)	
	1) Update	
	• T. Anziano reported that	
	demolition of the old approach	
	span is progressing well and	
	ahead of schedule; closeout cost	
	is holding.	
	2) C Curve Undate / Evit Strategy	
	2) S-Curve Update/ Exit Strategy	• The TBPOC <b>APPROVED</b> the
	D. McElhinney presented, for  TRACC  TR	
	TBPOC approval, the proposed S-	proposed S-Curve traffic
	Curve traffic management	management strategy, as
	strategy and related cost of	presented, with related cost of
	\$295,000 and contingency of	\$295,000 and reduced
	\$2,115,000 from May through	contingency of \$660,000 from
	December 2010.	May through December 2010.
	<ul> <li>S. Nozzari provided an update on</li> </ul>	
	the speed monitoring actions,	
	accident summary, CHP	
	enforcement schedule, reduction	
	in lane closures and CHP	
	presence.	
	o B. Lott (CHP) noted that there	
	have been great improvements in	
	traffic engineering measures and	
	CHP enforcements, and indicated	
	that the CHP fully supports the	
	proposal.	

	Items	Action
St	erba Buena Island Transition ructures (YBITS) No. 1 Update  T. Anziano reported that YBITS No. 1 will begin upon completion of the YBID work (currently on schedule).	
	<ul> <li>akland Touchdown (OTD) No. 1</li> <li>Update</li> <li>T. Anziano reported that the project is expected to complete within a week.</li> </ul>	
	<ul> <li>akland Touchdown (OTD) No. 2</li> <li>Scope Change Request</li> <li>T. Anziano presented, for TBPOC approval, a proposal to transfer a section of the State Highway Operation and Protection Program (SHOPP)-funded Segment III bicycle/pedestrian path project to the OTD No. 2 contract.</li> </ul>	The TBPOC <b>APPROVED</b> the OTD No. 2 scope change request, as presented.
e. Bi	S. Hulsebus and P. Lee presented, for TBPOC information, three OTD options and two YBI options to open as much of the bike path as possible prior to completion of the eastbound on-ramp at Yerba Buena Island.  Additional handouts showing close-up views of the various temporary bike path options were distributed.  When queried, S. Hulsebus indicated that there was a preference for OTD Options 1 and 4 (Option 5 has a constructability issue).  The Chair suggested getting the Bicycle Advisory Committee together to establish awareness of the cost and geometric issues	Staff to explore additional YBI alternatives than the two presented today and apprise the TBPOC accordingly.

#### (continued)

	Items	Action
	attached to these bike path options.	
7	<ul> <li>DUMBARTON/ ANTIOCH BRIDGE RETROFIT UPDATE</li> <li>J. Weinstein noted that bid opening for the Dumbarton Bridge Seismic Retrofit Project is scheduled for May 27, 2010.</li> </ul>	
9	<ul> <li>OTHER BUSINESS</li> <li>The TBPOC agreed to move the June 3 meeting from Sacramento to the Bay Area, and afford an opportunity for C. McKim to tour the jobsite.</li> </ul>	Staff to make the appropriate arrangements to move the June 3 TBPOC meeting from Sacramento to Oakland and schedule a TBPOC field tour.

Adjourned: 5:16 PM

#### **TBPOC MEETING MINUTES**

 $May~6,~2010,~3:00~PM-5:00~PM\\ Director's~Conference~Room,~1120~N~Street,~Sacramento,~CA$ 

# STEVE HEMINGER, TBPOC Chair Executive Director, Bay Area Toll Authority BIMLA G. RHINEHART, TBPOC Vice-Chair Executive Director, California Transportation Commission CINDY McKIM Chief Deputy Director California Department of Transportation Date



#### Memorandum

TO: Toll Bridge Program Oversight Committee DATE: May 26, 2010

(TBPOC)

FR: Dina Noel, Assistant Deputy Director Toll Bridge Program, CTC

RE: Agenda No. - 2b1

Item- Consent Calendar

Yerba Buena Island Detour Contract Change Order No. 1-S6 –

Maintain Traffic

#### **Recommendation:**

**APPROVAL** 

**Cost:** 

CCO 1-S6: \$500,000.00

#### **Schedule Impacts:**

None

#### **Discussion:**

**CCO 1-S6 in the amount \$500,000** is necessary to pay for flagging and directing traffic in and around the jobsite.

The funding to maintain the roadway and provide additional traffic control in accordance with Section 7-1.08, Public Convenience, of the Standard Specifications has been provided by the supplemental funds approved for this contract under traffic control and maintain traffic items. Supplement #6 provides for the estimated additional funding needed through the completion of the job.

#### Attachment(s):

- 1. Draft CCO: 1-S6
- 2. Draft CCO Memorandum: 1-S6
- 3. YBID Implementation Strategy Memo

#### CONTRACT CHANGE ORDER

Change Requested by:

Engineer

CCO: 1	Suppl. No. 6	Contract No. 04 - 0120R4	Road SF-80-12.6/13.2	FED. AID LOC.:

To: CC MYERS INC

You are directed to make the following changes from the plans and specifications or do the following described work not included in the plans and specifications for this contract. **NOTE: This change order is not effective until approved by the Engineer.** 

Description of work to be done, estimate of quantities and prices to be paid. (Segregate between additional work at contract price, agreed price and force account.) Unless otherwise stated, rates for rental of equipment cover only such time as equipment is actually used and no allowance will be made for idle time. This last percentage shown is the net accumulated increase or decrease from the original quantity in the Engineer's Estimate.

#### **Extra Work at Force Account:**

Provide additional funds for scope of work as approved on the original Change Order #1.

Estimated cost of Extra Work at Force Account ......\$500,000.00

Estimated Cost: Increase 💌 Decrea	ise \$500,000.00
vill be adjusted as follows: 0 days	
Resident Engineer Date  JEANNIE BALDERRAMOS	
SFOBB Construction Manager  MIKE FORNER	
SFOBB Construction Manager	Date
	Resident Engineer  JEANNIE BALDERRAMOS  SFOBB Construction Manager  MIKE FORNER

We the undersigned contractor, have given careful consideration to the change proposed and agree, if this proposal is approved, that we will provide all equipment, furnish the materials, except as may otherwise be noted above, and perform all services necessary for the work above specified, and will accept as full payment therefor the prices shown above.

NOTE: If you, the contractor, do not sign acceptance of this order, your attention is directed to the requirements of the specifications as to proceeding with the ordered work and filing a written protest within the time therein specified.

Contractor Acceptance by		
Signature	(Print name and title)	Date

#### CONTRACT CHANGE ORDER MEMORANDUM

TO: MIKE FOR	RNER / D	EANNA VILCHE	CK		FILE: E	.A.	04 - 0120R4			
FROM: JEANNIE BALDERRAMOS					- CO-RTE-PM SF-80-12.6/13.2 FED. NO.					
CCO#: <b>1</b>	SUPPL	EMENT#: 6	Categor	y Code: <b>AEZZ</b>	CONTINGE	NCY	BALANCE (incl. this cha	ange)	\$34,96	52,309.59
COST: \$500	COST: \$500,000.00 INCREASE ✓ DECREASE				HEADQUAF	RTEF	RS APPROVAL REQUIR	ED?	<b>✓</b> YES	□ NO
SUPPLEMENTAL	L FUNDS	PROVIDED:	\$50	0,000.00	IS THIS REQUEST IN ACCORDANCE WITH YES NO ENVIRONMENTAL DOCUMENTS?					□ NO
CCO DESCRIPTION: Additional Funds					PROJECT DESCRIPTION: CONSTRUCT ROUTE 80 TEMP BYPASS STRUCTURE					
Original Contract Time: Time Adj. This Change: Previously Approved Time Adjustments:				CCO Percentage Time Adjusted: Total # of Unreconciled Deferr (including this change) CCO(s): (including this change						
475 Dav(s) 0 Dav(s) 1660					av(s)		340 %		0	

DATE: 5/24/2010

Page 1 of 2

#### THIS CHANGE ORDER PROVIDES FOR:

Additional funding to maintain the roadway and provide additional traffic control for the sole convenience and direction of the public in accordance with Section 7-1.08, Public Convenience, of the Standard Specifications.

This project was awarded in March 2004 to construct a detour that will allow for the tie in of the new east span of the San Francisco Oakland Bay Bridge to Yerba Buena Island. The detour encompasses three main structures, the East Tie-In (ETI) to the existing bridge, the West Tie-In (WTI) to Yerba Buena Island and the Viaduct structure between the two tie ins. The contract was issued as a performance based contract with the contractor responsible for providing the design of the structure based on specified design criteria.

Two separate Department strategy memorandums, dated December 14, 2006 and December 25, 2006 and both approved by Tony Anziano – Toll Bridge Program Manager, Richard land – Chief Engineer and subsequently by the Toll Bridge Program Oversight Committee (TBPOC), recommended that the Department assume the design responsibility for the ETI and WTI structures and recommended the advance construction of foundation work for the Yerba Buena Island Transition Structure (YBITS) to be added to this contract. The implementation of these strategies has led to the extension of the contract through the end of 2010 approximately 5 years past the original contract completion date.

The implementation of these strategies has also significantly added to the work identified to be performed under Change Order No. 1. It is now anticipated that additional funding will be required for the work of this change. The majority of the cost pertains to flagging that is required to safety allow public and construction traffic to use the narrow and twisting roadway that provides the sole access to the jobsite.

This supplement to the change order, S6, provides additional funds of \$500,000.00 required for the balance of this work through the completion of the job. The work shall be compensated as extra work at force account which can be funded from the Supplemental Work Fund Maintain Traffic. A cost analysis is on file.

Supplemental change order S0 through S6 are funded by two supplemental work funds: Additional Traffic Control and Maintain Traffic.

Supplemental change order S0, S1 and S2 are fully funded for \$500,000.00 from the SWF Additional Traffic Control. Supplemental S4 is a net credit to the contingency of \$57,580.00. Supplemental S3, S5 and S6 are fully funded for \$1,050,000.00 from the SWF Maintain Traffic.

No adjustment of contract time is warranted as the change will not affect the controlling operation.

Maintenance concurrence is not required as the work doesn't affect any permanent roadway features.

EA: 0120R4 CCO: 1 - 6

DATE: 5/24/2010

Page 2 of 2

CONCURRED BY:				ESTIMATE OF COST	Γ
Construction Engineer:	Jeannie Balderramos, RE	Date		THIS REQUEST	TOTAL TO DATE
Bridge Engineer:		Date	ITEMS	\$0.00	(\$500,000.00)
	l · O · DE	~~~~	FORCE ACCOUNT	\$500,000.00	\$1,950,000.00
Project Engineer:	Jaime Gutierrez, PE	Date	AGREED PRICE	\$0.00	\$0.00
Project Manager:	Ken Terpstra, PM	Date	ADJUSTMENT	\$0.00	\$42,420.00
FHWA Rep.:		Date	TOTAL	\$500,000.00	\$1,492,420.00
Environmental:		Date		FEDERAL PARTICIPATIO	DN
Other (specify):		Date	PARTICIPATING NON-PARTICIPATIN	PARTICIPATING IN G (MAINTENANCE)	N PART ✓ NONE  NON-PARTICIPATING
Other (specify):		Date	FEDERAL SEGREGATIO	N (if more than one Fur	nding Source or P.I.P. type)
District Prior Approval By	/.	Date	CCO FUNDED PER C	·	CCO FUNDED AS FOLLOWS
HQ (Issue Approve) By:	Larry Salhaney, HQ CCO Engine	e Date	FEDERAL FUNDING S	SOURCE	PERCENT
Resident Engineer's Sigr	nature:	Date			AND THE RESERVE OF THE PROPERTY OF THE PROPERT

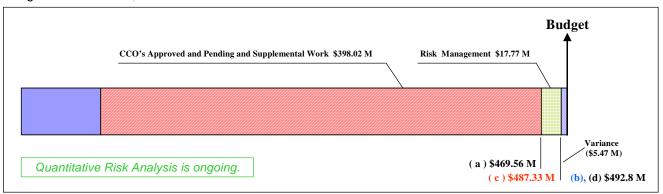


	Yerba Buena Island Detour (Contract 04-0120R4)								
Contract Award:	March 10 <sup>th</sup> , 2004	Suspension Days:	302 Working Days						
Original Working Days:	475 Working Days	Contract Extensions:	1660 Working Days						
Original Contract Completion:	July 27th, 2005	Projected Contract Completion:	December 10, 2010						

#### Introduction

Two memos were developed to outline a strategy for a revised YBID project that enhanced YBID viaduct design, developed tie-in design (east and west) in-house, improved the retrofit of the YBI viaduct (replacing the top deck of the viaduct rather than retrofitting in place) and advanced and incorporated select YBITS foundation work. The two memos are "San Francisco-Oakland Bay Bridge Corridor Schedule Mitigation – Strategy for South-South Detour Contract Completion" issued December 14, 2006, and "Recommendation to Construct Select Yerba Buena Island Transition Structure Foundations by Contract Change Order" issued on December 25, 2006. This strategy will result in substantial increases in the cost of the YBID project.

As approved at the June 2009 TBPOC meeting the revised budget for the YBID project is 492.8M. This figure was established in May 2009 using all available information to date. This figure is within the projects approved budget balance beam, as shown below:



#### Scope of Work for YBID

The revisions to the original scope of work currently associated with the Yerba Buena Island Detour Project have been assigned into the following categories with their associated estimated cost:

Category	Scope of Work	Current Budget	In Progress Status Update from June 09 Approved Budget			
0 ,	·	(June 2009)	Current	Delta		
(0)	Original Bid Items, Baseline CCOs (1 through 48), and State Furnished Materials	\$83.7	\$83.7	\$0		
(1)	YBID New Viaduct	\$40.1	\$42.5	\$2.3		
(2a)	West Tie-In Existing Viaduct Phase 1	\$40.1	\$40.1	\$0.0		
(2b)	West Tie-In Phase 2	\$21.8	\$18.1	(\$3.7)		
(3)	East Tie-In	\$140.0	\$144.8	\$4.8		
(4)	YBI Transition Structures Advance Foundations	\$104.3	\$103.7	(\$0.5)		
(5)	Administrative Issues and General CCOs	\$37.8	\$42.9	\$5.1		
Subtotal		\$467.8	\$475.8	\$8.0		
Contingen	су	\$25.0	\$17.5			
Approved I	Budget	\$492.8				

Contract payments as of April 20, 2010: \$441.0M.

As shown, the current status of CCOs required to modify the original scope of the YBID work as defined in Categories 1 through 5 is \$394. The status of each category of work is discussed in the succeeding pages of this report.



#### Bid Items, Baseline CCOs, & State Furnished Material



The break down of Category (0) is as follows:

Original Contract Amount \$ 71.2 million
Baseline CCOs (1 through 48) \$ 12.1 million
State Furnished Materials \$ 0.4 million
Total \$ 83.7 million

#### Baseline Contract Change Orders (1 through 48)

CCO#	Description	Executed Date	Cost	CCO#	Description	Executed Date	Cost
1	Flagging and Traffic Control	5/13/2004	\$100,000.00	24S1	Read Inclinometer/Adjust Equipment Costs	10/18/2005	\$29,782.99
1S1	Additional Funds for Flagging and Traffic Control	2/9/2007	\$200,000.00	24\$2	Temporary Suspension Partially Extended	5/2/2006	\$4,812,631.58
2	Bidder Compensation	5/8/2004	\$1,575,000.00	24S3	Contract Days Extension/TRO Compensation	Voided	N/A
3	Partnering	9/7/2004	\$25,000.00	25	Bent 48, 49R, 52R Outside Boundary	3/24/2005	(\$19,000.00)
4	DRB	9/7/2004	\$100,000.00	26	Bent 48 Articulation	4/22/2005	\$0.00
5	Federal Trainee Program	11/12/2004	\$20,000.00	27	Bent 52L Footing Conflict	1/19/2006	\$94,386.51
5S1	Non-Journey Person Training	3/10/2005	\$50,000.00	28	Hydroseed Around W2 Columns	3/24/2005	\$20,000.00
6	Removal of DBE/SBE Monitoring	2/10/2005	\$0.00	29	Replacement of Surveillance Camera	3/24/2005	\$3,542.00
7	Sampling and Analysis Work	8/30/2004	\$30,000.00	30	Additional Elastic Response Analysis	5/31/2005	\$10,700.00
8	SWPPP Maintenance Sharing	8/30/2004	\$75,000.00	31	Soil Analysis Outside Plan Limits	6/27/2005	\$20,000.00
9	Additional Photo Survey/Public Relations	9/14/2004	\$50,000.00	32	SFPUC Permit Specification Change	5/17/2005	\$0.00
10	Temporary Shuttle Van Service	7/16/2004	\$650,000.00	33	Design Enhancements	Voided	N/A
10S1	Additional Funds for Temporary Shuttle Van Service	6/23/2005	\$100,000.00	34	Pole Structure Welding Specification Revision	9/30/2005	\$0.00
10S2	Additional Funds for Temporary Shuttle Van Service	1/12/2007	\$500,000.00	35	Revision of East Tie-In Design Criteria	Voided	N/A
11	Utility Potholing	9/14/2004	\$100,000.00	36*	Extend Limits of Viaduct Demolition	Voided	N/A
12	Just-In-Time Training (RSC Pavement)	2/10/2005	\$5,000.00	37	4 Hr Emergency Travel Way	Voided	N/A
13	PMIV Document Management System	11/3/2004	\$486,743.50	37S1	Emergency Travel Way Falsework	Voided	N/A
14	Temporary Suspension	5/19/2004	\$0.00	38	Revision of West Tie-In Design Criteria	8/4/2005	\$0.00
15	Archaeology Investigation	7/19/2004	\$30,000.00	39	Provide Shuttle Service to USCG	6/27/2005	\$10,000.00
15S1	Additional Funds for Archaeology Investigation	4/22/2005	\$15,000.00	40	Sewer Pipe Material Change	9/26/2005	\$1,561.95
16	Roadway Profile at WTI	Voided	N/A	. 41	Bent 49L Utility Relocation	Voided	N/A
17	Modify Drainage at G4 Entry Vault	10/24/2006	\$108,217.45	42	Bent 48R Pile Load Test	9/12/2005	\$20,000.00
18	Access Control Measures	9/8/2004	\$50,000.00	42S1	Bent 52R Pile Load Test	12/15/2005	\$5,000.00
19	EDR1 Alignment Modification	5/12/2005	\$0.00	43	Material On Hand Specification Change	9/16/2005	\$75,953.88
20	A490 Bolts	10/23/2006	\$0.00	43S1	Addition of YBITS Advance to Material On Hand	Voided	N/A
21	Removal /Disposal of Stairway	4/13/2005	\$14,060.00	44	Electrical Call Box Relocation		\$47,480
22	Clean Stairs and Walkways	5/24/2005	\$35,000.00	45	Additional SWPPP	2/21/2006	\$250,000.00
22S1	Additional Funds for Cleaning Stairs and Walkways	11/24/08	\$25,000.00	46	Southgate Road Reopening	3/8/2006	\$50,000.00
23	Shared Field Data System (ShareArchive)	Voided	N/A	47	Hazardous/Non-Hazardous Soil Removal	12/15/2005	\$100,000.00
24	East and West Tie-In Temporary Suspension	2/1/2005	\$2,181,467.40	48	Buried Man-Made Objects	12/15/2005	\$50,000.00
Total fo	r Baseline Contract Change O	rders					\$12,107,527

• The scope of work for CCO No. 36 was completed and compensated for under the larger scope of CCO No. 76.



#### **SSD New Viaduct**



#### **Progress of Work**

Fabrication of the structural steel truss took place at Dongkuk S&C in South Korea. With the placement of traffic onto the detour, the construction of the Viaduct is substantially complete. Minor punch list work remains. Status of Contract Change Orders: YBID New Viaduct:

				TDDGG		0 1	Oh
CCO	Method of Payment	Description	HQ Status	TBPOC Status	CCO Status	Current Estimate/	Change from June 09
	on a gimeni			Otatus		Actual Cost	Approved Budget
49	LS	Stringer and Floor Beam Design Study	N/A	N/A	Executed 5/2/2006	\$109,183	
49S1	FA	Truss Design Modifications (Changes to Stringer and Floor Beam Connections)	I&A 12/08/06	N/A	Executed 8/17/2006	\$150,000	
49S2	FA		I&A 12/08/06	N/A	Executed 12/18/2006	\$100,000	
Subtotal	(CCO #49 ar	nd Supplements)				\$359,182	
50	FA		N/A	N/A	Executed 5/8/2006	\$325,000	
50S1	FA		I&A 9/21/06	N/A	Executed 10/16/2006	\$300,000	
50S2	FA		I&A 12/08/06	N/A	Executed 12/18/2006	\$100,000	
50S3	FA	Stand Alone Viaduct Design	I&A 2/09/07	N/A	Executed 2/13/07	\$175,000	\$60,000
50S4	FA		I&A 12/21/09	N/A	Executed 12/22/09	\$30,000	,,,,,,,
50 <b>S</b> 5	FA		I&A 05/06/10		In Progress	\$30,000	,
Subtotal	(CCO #50 ar	nd Supplements)				\$960,000	
54	LS	Deck Drainage	N/A	N/A	Executed 5/2/07	\$8,000	
55	LS	Viaduct Fabricator Change (SGT Closeout)	I&A 7/08/07	Approved 6/27/07	Executed 8/7/07	\$5,665,330	
55S1	LS	SGT Fabrication Closeout - Dongkuk Materials	I&A 1/24/08	Approved 3/5/08	3/17/08	\$980,600	
59	LS	Water Blast Rebar Cages	N/A	N/A	Executed 2/22/07	\$5,000	
59S1	LS	Additional funds, Water Blast Rebar Cages	N/A	N/A	Executed 11/24/08	\$5,000	\$15,000
59S2	FA	Viaduct Rebar Cleaning	N/A	N/A	2/16/10	\$15,000	
60	LS	Construction of Bent Caps	I&A 6/13/07	Approved 6/27/07	Executed 6/18/07	\$7,435,950	
67	FA	Viaduct/ETI Interface Modifications (Design Cost)	I&A 5/14/07	N/A	Executed 9/27/07	\$800,000	
79	LS	Fabrication Cost for Viaduct Design Changes July '05 - October '06	I&A 7/19/07	N/A	Executed 8/7/07	\$803,400	
79S1	LS	Fabrication Cost for Viaduct Design Changes - July 05-Oct 06	I&A 6/13/08	N/A	Executed 8/4/08	\$75,860	
80	LS	Erection Costs for Viaduct Design Changes through October 2006	N/A	Approved 1/31/08	Executed 2/20/08	\$6,912,200	
82	FA	OGAC Paving and Expansion Dams	I&A 8/10/09	N/A	Executed 10/8/09	\$547,680	
82S1	FA	Add funds AC Deck Grinding	I&A 12/17/09	N/A	Executed 12/22/09	\$120,000	\$521,386
213	LS	Bent 48 Expansion Joint & Drainage Escalation	I&A 7/23/09	N/A	Executed 8/06/09	\$488,100	
85	LS	Design of 300mm Waterline Relocation	N/A	N/A	Executed 3/17/08	\$12,480	



87	LS	Viaduct Shipping Escalation Costs	I&A 7/24/07	N/A	Executed 10/2/07	\$534,570	
87S1	LS	Viaduct Shipping Escalation Costs	I&A 1/14/08	N/A	Executed 1/30/08	\$200,000	
88	LS	Viaduct Fabrication Delays	I&A 7/19/07	N/A	Executed 8/7/07	\$954,460	
88S1	LS	Viaduct Fabrication Delays	I&A 8/22/07	N/A	Executed 9/27/07	\$776,630	
98	FA/LS	Viaduct Steel Storage and Handling Cost	I&A 5/30/08	N/A	Executed 6/18/08	\$845,370	
98S1	FA	Add Funds Steel Storage and Handling Cost	I&A 12/17/09	N/A	Executed 12/22/09	\$151,000	\$151,000
99	LS	Viaduct Erection Costs (Post Oct. 2006)	I&A 4/17/08	N/A	Executed 5/22/08	\$862,614	
100	FA	Viaduct Fabrication Costs (Post Oct. 2006)	I&A 1/22/08	N/A	Executed 1/28/08	\$650,000	
105	FA/LS	Dongkuk Fabrication and Temp Bracing Fabrication Costs (July 2007 Plans)	I&A 4/2/08	Approved 4/3/08	Executed 4/17/08	\$2,140,640	
106	-	CCO Voidedprevious scope of work was incorporated into CCO 105	-	-	-	-	-
107	LS	Furnish and Drive Erection Tower Falsework Piles	I&A 8/07/08	N/A	Executed 10/02/08	\$855,190	
111	FA/LS	USCG Parking Replacement and Protection	N/A	N/A	Executed 3/17/08	\$163,223	
111S1	LS	Additional costs USCG Parking Lot	N/A	N/A	Executed 6/30/08	\$8,940	
111S2	LS	Additional costs USCG Car Port Canopy	N/A	N/A	Executed 4/23/09	\$120,000	\$120,000
111S3	LS	Additional costs USCG Car Port Canopy	N/A	N/A	Executed 9/21/09	\$80,000	\$80,000
115	FA	Third VIA Shipping for CCO #67 July 07 plans	I&A 5/06/08	N/A	Executed 5/22/08	\$850,000	
128	LS	60% of Waterline Relocation and Viaduct Connection Modifications	I&A 8/18/09	N/A	Executed 10/8/09	\$533,123	
128S1	LS	60 % of Waterline Design Mods and Impact Costs	N/A	N/A	Executed 1/20/10	\$145,428	(\$138,039)
215	FA	Underground Waterline Excavation Costs	N/A	N/A	Executed 10/8/09	\$47,000	
133	-	Lightweight Conc. Mix Design Spec Change	N/A	N/A	Executed 9/12/08	\$0	
134	LS	60% of Project Wide Electrical Changes	7/7/09	Approved 5/7/09	Executed 8/25/09	\$1,380,554	
196	LS	Revised Electrical Lighting	N/A	N/A	Executed 7/28/09	\$35,944	(\$174,056)
135	LS	Rebar Deck Escalation Costs	I&A 11/09/08	N/A	Executed 1/28/09	\$995,100	
136	FA/LS	Provide additional alternate entrance access to USCG Base	N/A	N/A	Executed 9/23/08	\$74,540	
136S1	FA/LS	Add Funds for access to USCG Base	N/A	N/A	Executed 1/6/09	\$100,000	\$100,000
136S2	FA/LS	Add Funds for access to USCG Base	I&A 3/27/09	N/A	Executed 3/30/09	\$400,000	\$400,000
136S3	FA/LS	Add Funds for access to USCG Base	I&A 9/22/09	N/A	Executed 3/30/09	\$350,000	\$350,000
138	LS	Waterline Relocation for Fire Hydrant (Conflicts with Span 49 Falsework)	N/A	N/A	Executed 9/22/09	\$278,200	
148	FA	USCG Road Canopy below Viaduct	I&A 8/27/08	N/A	Executed 9/23/08	\$500,000	_
150	LS	Bent 52A Sewer Relocation	I&A 4/20/09	N/A	Executed 4/23/09	\$242,330	\$242,330
152	LS	Relocate USCG Road for steel erection FW Towers at Span 51	I&A 1/06/09	N/A	Executed 2/4/09	\$336,420	
156	LS	Span 49 F/W Conflict w/ USCG Utilities	N/A	N/A	Executed 9/23/08	\$180,820	
163	LS	Viaduct Grade Conflict	N/A	N/A	Executed 6/12/09	\$83,202	(\$16,798)
=		•	•	•	•		



173	LS	Viaduct Escalation	I&A 4/6/10	N/A	Executed 05/04/10	\$740,890	(\$259,110)
178	LS	Type 7 Fence at Barrier	I&A 7/31/09	N/A	Executed 8/25/09	\$457,356	\$374,176
178S1	LS	Type 7 Fence at Barrier	I&A 4/12/10	N/A	Executed <b>05/17/10</b>	\$47,240	\$47,240
178S2	LS	Type 7 Fence at Barrier		N/A	In Progress	\$207,690	\$207,690
198	Credit/ LS	60 % of Job Wide Stripping Plan (Viaduct Portion)		N/A	Executed 12/14/09	\$179,678	\$89,678
199	Credit	CCO Deleted	-	-	-	-	(\$100,000)
201	LS	Viaduct Steel Erection USCG Protective Netting	N/A	N/A	Executed 10/8/09	\$156,350	(\$73,650)
209	LS	Viaduct USCG Flagging & Delays (Span 51)	N/A	N/A	Executed 8/13/09	\$92,810	(\$47,190)
210	LS	Steel Erection Close Out	N/A	N/A	Executed 1/20/10	\$147,230	\$22,230
226	FA	Manhole Covers	N/A	N/A	Executed 2/8/10	\$30,000	\$30,000
228	FA	Call Box and SCADA	N/A	N/A	Executed 05/19/10	\$30,000	\$30,000
235	FA	1/3 <sup>rd</sup> of Detour Traffic Improvements	I&A 1/20/10	N/A	Executed 2/22/10	\$100,000	\$166,667
235S1	FA	1/3 <sup>rd</sup> of Additional Detour Traffic Improvements	I&A 3/9/10	N/A	Executed 03/22/10	\$66,667	φ100,007
238	FA	Additional Scuppers	N/A	N/A	Executed 1/20/10	\$100,000	\$100,000
242	FA	Vertical Clearance Signing	N/A	N/A	Executed 04/19/10	\$30,000	\$30,000
245	LS	OH Sign Illumination	N/A	N/A	Executed <b>05/19/10</b>	\$5,220	\$5,220
Current	Forecast for	r YBID New Viaduct				\$42,460,212	\$2,333,774

#### **Budget Status**

The Viaduct portion of the YBID was bid at \$26.74M. The projected additional costs in the December 14, 2006 Strategy Memorandum were estimated to be \$9M. The June 2009 revised additional cost estimate is \$40.1M with a current projection of \$43.8M. CCOs executed to date are \$43.5M.

#### West Tie-In

Phase 1



#### **Progress of Work**

Phase 1 work was substantially complete with the move in of the Structure on September 03, 2007. Miscellaneous electrical and drainage work remain. WB On-ramp reopened on August 8, 2008 and was subsequently re-closed on September 8, 2009 to accommodate the demolition of the old structure.

Status of Contract Change Orders: West Tie-In Existing Viaduct (Phase 1)

CCO	Method of Payment	Description	HQ Status	TBPOC Status	CCO Status	Current Estimate/ Actual Cost	Change from June 09 Approved Budget
58	FA	Bridge Removal Plan	N/A	N/A	Executed 11/21/06	\$60,000	
58 S1	FA	Bridge Removal Plan	N/A	N/A	Executed 7/05/07	\$40,000	
61	FA	Advance Engineering (Work Plans and Submittals), Site Prep (Ramp Closures, Access Road), Civil Work (Grading), Structure Work (Material Procurement)	I&A 1/09/07	N/A	Executed 2/27/07	\$400,000	
61S1	LS/FA	Construction of Stage 1 Area and Substructure	I&A 5/16/07	Approved 6/27/07	Executed 5/18/07	\$9,995,644	
66	FA	TMP – Video Equipment (WTI Phase 1)	N/A	N/A	Executed 7/20/07	\$175,000	



68	FA	Temporary Electrical Work	N/A	N/A	Executed 7/20/07	\$140,000	
68S1	FA	Temporary Electrical Work Stage 2, 3 &4	I&A 12/02/07	N/A	Executed 10/31/07	\$510,000	
72	LS	Structure Work (Superstructure), and Temporary Shuttle Service	I&A 7/19/07	Approved 7/27/07	Executed 7/20/07	\$11,096,900	
76	LS	Labor Day Bridge Demolition and Move-In	I&A 7/19/07	Approved 7/27/07	Executed 7/20/07	\$2,240,300	
76S1	LS	Labor Day Bridge Move-In (Changeable Message Signs, Temporary Signs, Traffic Control, Bridge Removal, Bridge Move-In, Paving and Roadway Repairs, CCM Support Costs, City Traffic Officers)	I&A 8/28/07	Approved 8/24/07	Executed 9/27/07	\$10,144,140	
84	LS	Skid Track Foundations and Temporary Columns	I&A 7/27/07	Approved 7/27/07	Executed 7/31/07	\$3,980,000	
101	LS	Reconstruct Slab, West Bound On-ramp	I&A 4/02/08	N/A	Executed 4/17/08	\$846,140	
101S1	LS	WB Onramp Supplemental Work	I&A 1/06/09	N/A	Executed 2/4/09	\$149,560	
102	FA	Northside Drainage Work	N/A	N/A	Executed 4/4/08	\$60,000	
102S1	LS	Northside Drainage Work	N/A	N/A	Executed 7/15/09	\$48,818	\$46,578
102S2	FA	Additional Northside Drainage Work	N/A	N/A	Executed 7/15/09	\$50,000	
103	LS	Labor Day Weekend Closure Misc. Costs	N/A	N/A	Executed 2/20/08	\$173,140	
Current S	status for W		\$40,109,642	\$46,578			

#### **Budget Status**

The projected additional costs in the December 14, 2006 Strategy Memorandum were estimated to be \$40M. The June 2009 revised additional cost estimate is \$40.1M with a current projection of \$40.1M. CCOs executed to date are \$40.1M.

### West Tie-In Phase 2 2b

#### Progress of Work

With the placement of traffic onto the detour, Frames 1, 2, and 3 are substantially complete. Minor punch list work remains.

Status of Contract Change Orders: West Tie-In (Phase 2)

ССО	Method of Payment	Description	HQ Status	TBPOC Status	CCO Status	Current Estimate/ Actual Cost	Change from June 09 Approved Budget
62	LS	Construction of Phase 2 Foundations and Credits for Elimination of Bid Items 12 and 90	I&A 2/29/08	Approved 4/4/08	Executed 4/7/08	(\$4,649,850)	
200	FA	Shoring at Abutment 47A	N/A	N/A	Executed 11/19/09	\$50,000	(\$250,000)
71	LS	WTI Phase 2 Pile at Bent 46L/Slab Bridge Removal	I&A 7/24/07	N/A	Executed 7/20/07	\$384,130	
108	LS	Substructure	I&A 6/20/08	Approved 6/18/08	Executed 6/25/08	\$5,378,800	
117	FA	Surface Drainage (Southside)	N/A	N/A	Executed 1/6/09	\$150,000	
128	LS	20% of Waterline Relocation and Stringer Stiffeners	I&A 8/18/09	N/A	Executed 10/8/09	\$177,708	\$71,654
128S1	LS	20 % of Waterline Design Mods and Impact Costs	N/A	N/A	Executed 1/20/10	\$48,476	φ/ 1,054
134	LS	20% of Project Wide Electrical Changes	7/7/09	Approved 5/7/09	Executed 8/25/09	\$460,185	
196	LS	Revised Electrical Lighting	N/A	N/A	Executed 7/28/09	\$11,981	(\$58,019)
141	LS/FA	Superstructure Construction	I&A 11/13/08	Approved 11/18/08	Executed 11/25/08	\$13,200,000	



	Status for W	est Tie-In (Phase 2)	I N/A	IN/A	iii Fiogress	\$18,063,140	(\$3,695,976)
243 251	LS	Falsework Delay  Down Drain Relocation	N/A N/A	N/A N/A	Executed 05/19/10 In Progress	\$22,510 \$20,000	\$22,510 \$20,000
235S1	FA	1/3 <sup>rd</sup> of Additional Detour Traffic Improvements	I&A 3/9/10	N/A	Executed 03/22/10	\$66,667	φ100,007
235	FA	1/3 <sup>rd</sup> of Detour Traffic Improvements	I&A 1/20/10	N/A	Executed 2/22/10	\$100,000	\$166,667
221	FA	Barrier Rail Transition Cover Plate at B47		N/A	Executed 12/15/09	\$25,000	\$25,000
220	LS	Flashing Beacons and Additional Tunnel Lighting	N/A	N/A	Executed 11/19/09	\$198,000	\$198,000
202		WTI K-rail Deletion and ETI K-rail plans	N/A	N/A	Executed 11/4/09	(\$42,000)	(\$42,000)
198	Credit/ LS	20% of Job Wide Striping Plan (WTI Phase 2 Portion)		N/A	Executed 12/14/09	\$59,893	(\$10,212)
208	LS	Concrete and Miscellaneous Changes		N/A	Executed 05/04/10	\$131,600	(ΨΖΖΙ,ΟΙΟ)
168	LS	Rebar H.S. Rod Modifications		N/A	Executed 03/22/10	\$147,390	(\$221,010)
161	LS	T7-Line Detour	I&A 11/10/08	N/A	Executed 11/25/08	\$403,965	
143S1	LS	Roadway AC Overrun	N/A	N/A	Executed 2/8/10	\$62,249	(\$3,010,300)
143	LS/ID	Civil Work (EB Onramp and Mainline)	I&A 6/11/09	N/A	Executed 7/28/09	\$156,436	(\$3,618,566)
141S1	ACUP	Superstructure Construction Completion Incentive (Release of Frame 1 Bent Cap FW)	I&A 5/15/09	Approved 5/15/09	Executed 5/15/09	\$1,500,000	

#### **Budget Status**

The Contractor's bid price for the West Tie-In was \$9.0M. Based on the Department's December 14, 2006 Strategy Memorandum, the costs associated with the Phase 2 West Tie-In work were estimated to be an additional \$13.0M. The June 2009 revised additional cost estimate is \$21.8M, with a current projection of \$18.1M. CCOs executed to date are \$18.0M.

#### East Tie-In



#### Progress of Work

Bent 52A and skid bent foundation design packages were delivered October 2007. ETI design plans for the skid bents and skid beams were delivered March 15, 2008 and truss plans were delivered April 7, 2008.

Fabrication of the skid bents and skid beams took place at Thompson Metal Fab, Inc. in Vancouver, WA and the fabrication of the truss took place at Stinger Welding Inc. in Coolidge, AZ.

The existing SFPUC sanitary sewer pump station has been relocated with the new pump station up and running. The East Tie-In structure was successfully moved into place and traffic switch onto the detour on September 8, 2009.

Removal of the skid bent towers and beams is in progress.

Status of Contract Change Orders: East Tie-In

ССО	Method of Payment	Description	HQ Status	TBPOC Status	CCO Status	Current Estimate/ Actual Cost	Change from June 09 Approved Budget
63	FA	Advance Engineering (Work Plans and Submittals)	I&A 8/22/07	N/A	Executed 9/27/07	\$800,000	
69	LS	Procurement of Pump/Control Panel for Pump Station Relocation	N/A	N/A	Executed 10/10/07	\$111,280	
69S1	LS	Construction for Pump and Control Panel for Relocated Pump Station	I&A 12/19/07	N/A	Executed 3/17/08	\$499,996	
69S2	LS	Sewer Pump Electrical Changes	I&A 2/25/09	N/A	Executed 4/08/09	\$8,953	
92	FA	ETI AT&T Fiber Optic Relocation	N/A	N/A	Executed	\$175,000	



93	LS/FA	Lead Paint Mitigation Existing Truss (Span YB-4)	I&A 2/13/08	N/A	12/17/07 Executed	\$563,725	
93S1	LS	Additional Lead Abatement at Span YB-4	I&A 6/8/09	N/A	2/20/08 Executed	\$347,417	(\$3)
93S2	LS	Additional Platform Rental and Adjustments	I&A 10/5/09	TBD	6/17/09 Executed	\$300,000	\$300,000
104	LS	Pier E-1 Access Towers	N/A	N/A	10/8/09 Executed 1/30/08	\$150,000	
104S1	LS	Additional Funds for Pier E-1 Access Towers	N/A	N/A	Executed 2/14/09	\$45,000	\$45,000
113	LS	Relocate Waterline in Conflict with Northern Skid Bent Footings	N/A	N/A	Executed 3/17/08	\$167,990	
128	LS	20% of Waterline Relocation and ETI Exterior Stringer Stiffeners	I&A 8/18/09	N/A	Executed 10/8/09	\$177,708	
128S1	LS	20 % of Waterline Design Mods and Impact Costs	N/A	N/A	Executed 1/20/10	\$48,476	(\$128,346)
137	LS	Pump station Water Tank Demo	N/A	N/A	Executed 6/26/08	\$114,490	
90	LS	Bent 52A and Skid Bent Footings and Credits for Eliminated Bid Items 10 and 42	I&A 3/26/08	Approved 4/4/08	Executed 4/14/08	\$11,308,380	
97	FA	Bent 52A and Skid Bent Footing's Material Procurement	I&A 11/06/07	N/A	Executed 11/19/07	\$850,000	
121	LS	Construct Stage 1 Soil Nail Wall, Upper East Tie-In area	N/A	N/A	Executed 3/17/08	\$142,670	
121S1	LS	Construct Stage 2 Soil Nail Wall, Upper East Tie-In area	N/A	N/A	Executed 3/18/09	\$518,130	
162	LS	Bent A3 Shoring	I&A 3/30/09	N/A	Executed 4/01/09	\$268,235	
180	LS	Skid Bent Footing Backfill at A4-A6 and B4-B6	I&A 5/20/09	N/A	Executed 6/12/09	\$237,000	
127	FA	RTU – 8 Service Platform	N/A	N/A	Executed 9/03/08	\$75,000	
134	LS	20% of Project Wide Electrical Changes	7/7/09	Approved 5/7/09	Executed 8/25/09	\$460,185	
196	LS	Revised Electrical Lighting	N/A	N/A	Executed 7/28/09	\$11,981	(\$58,019)
129	LS	Skid Bent and Truss Steel Erection	I&A 11/05/08	Approved 11/10/08	Executed 11/25/08	\$14,712,500	
129S1	LS	Skid Bent and Truss Steel Erection Acceleration	I&A 3/09/09	Approved 3/5/09	Executed 4/01/09	\$535,000	
129S2	LS	Skid Bent and Truss Steel Erection Incentive	I&A 6/9/09	Approved 6/4/09	Executed 6/17/09	\$1,177,000	
179	LS	ETI Truss Steel Erection Falsework Foundations	I&A 4/20/09	N/A	Executed 4/08/09	\$312,000	
234	LS	ETI Skid Bent/Beam Erection Interferences and Guy Cables	N/A	N/A	1/20/10	\$54,120	
236	LS	ETI Truss L8 North FW Redesign (Buried Man Made Object)	N/A	N/A	1/20/10	\$23,940	\$999,940
236S1	LS	Truss L8 North FW Redesign		N/A	In Progress	\$100,000	
<b>181</b> 206	LS	Skid Bent/Beam and Truss Erection Support Skid Bent Steel Erection Closeout Costs	N/A	N/A N/A	In Progress Executed	<b>\$500,000</b> \$176,670	
214	LS	ETI Truss Steel Erection Closeout Costs		N/A	1/20/10 Executed 1/20/10	\$645,210	
112	FA	Material Procure Skidbent (1532 Tower Legs)	I&A 1/10/08	Approved 2/4/08	Executed 2/19/08	\$2,000,000	
112S1	FA	Material Procure ETI Superstructure	I&A 3/03/08	Approved 3/5/08	Executed 3/17/08	\$8,500,000	
112S2	FA	Material Procure ETI Temporary Bypass Structure	I&A 6/04/08	Approved 6/16/08	Executed 6/25/08	\$3,500,000	
112S3	FA	Material Procure - Additional Funds	I&A 10/31/08	Approved 11/13/08	Executed 11/25/08	\$3,000,000	
112S4	FA	Material Procure - Additional Funds	I&A 7/7/09	Approved 7/15/09	Executed 7/16/09	\$1,500,000	
116	FA/LS	Fabricate Superstructure & Skidbent	I&A 6/04/08	Approved 6/16/08	Executed 8/8/08	\$14,166,180	



116S1	FA/LS	Skidbeam Design Modifications and Shipping Costs	I&A 12/19/08	Approved 12/23/08	Executed 2/3/09	\$1,896,750	\$249,560
116S2	FA/LS	Skidbeam Design Modifications and Shipping Costs	I&A 7/7/09	Approved 7/15/09	Executed 7/16/09	\$300,000	
140	LS	Truss Steel Fabrication	I&A 9/04/08	Approved 9/04/08	Executed 9/23/08	\$10,920,525	
140S1	ACUP	Truss Fabrication Incentive	I&A 6/17/09	Approved 9/04/08	Executed 7/6/09	\$300,000	
166	LS	Skid Bent & Beam Fabrication Acceleration	I&A 12/22/08	Verbal Approval 11/06/08 Approved 12/23/08	Executed 1/28/09	\$2,028,950	
166S1	ACUP	Skid Bent & Beam Fabrication Incentive	I&A 5/15/08	Approved 12/23/08	Executed 5/15/09	\$900,000	
167	LS	TMF – Shop Drawing Delay	I&A 3/16/09	N/A	Executed 5/6/09	\$632,670	
184	LS	Truss Design Modifications and Acceleration Costs (Partial Payment)	I&A 5/20/09	Approved 6/4/09	Executed 6/12/09	\$3,000,000	
184S1	LS	Truss Design Modifications and Acceleration Costs (Partial Payment)	I&A 7/31/09	Approved 8/6/09	Executed 8/11/09	\$4,393,420	
187	FA	Temporary Bracing for Truss Exterior Stringers	N/A	N/A	Executed 7/16/09	\$150,000	
193	LS	Skid Beam Design Modifications	I&A 7/7/09	N/A	Executed 7/16/09	\$256,140	
144	FA	Expansion Joint Mock-up	I&A 8/26/08	N/A	Executed 9/23/08	\$850,000	
144S1	FA	Expansion Joint Fabrication	I&A 2/03/08	Approved 2/5/09	Executed 4/06/09	\$2,900,000	
144S2	-	Revised Expansion Joint Plan Sheets	I&A 7/1/09	N/A	Executed 8/05/09	\$0	\$1,000,000
144S3	FA	Additional Funds for Expansion Joints	I&A 11/24/09	Approved 11/5/09	Executed 11/24/09	\$1,000,000	
231	FA	Expansion Joint Steel Skid Test Plates	N/A	N/A	Executed 12/15/09	\$100,000	\$100,000
233	LS/FA	Expansion Joint Skid Resistant Treatment	N/A	N/A	Executed 11/17/09	\$106,915	\$106,915
149	FA	Bearing Fabrication	I&A 11/03/08	Approved 11/10/08	Executed 11/25/08	\$1,600,000	£400,000
149S1	FA	Additional FA Funds for Bearing Fabrication / Testing	I&A 10/15/09	N/A	Executed 11/19/09	\$400,000	\$400,000
153	LS	Concrete Deck and barrier starter steel	I&A 6/23/09	Approved 6/4/09	Executed 7/6/09	\$2,389,940	(\$378,266)
154	LS	East Pile Deduct at BW6, East Pile	N/A	N/A	Executed 9/04/08	(\$400)	
154S1	LS	Pile Anomaly Deduction at A6W & B52A	N/A	Approved 11/13/08	Executed 11/25/08	(\$2,183)	
160	FA	Existing Truss Retrofit Fabrication	I&A 4/20/09	N/A	Executed 4/08/09	\$350,000	
170	LS	Existing Truss Strengthening Erection YB-4	I&A 7/31/09	N/A	Executed 10/08/09	\$413,600	(\$336,400)
175	LS	Existing Truss Strengthening Erection Stability Bracing at YB 3	I&A 7/22/09	N/A	Executed 8/13/09	\$311,144	(\$188,856)
164	LS	ETI Steel Erection Crane Runway Trestle	I&A 11/20/08	ATP 11/14/08 Approved 12/23/08	Executed 12/6/09	\$2,700,000	
169	LS	Skid Beam Jobsite Handling and Local Transportation Costs	I&A ½/09	Approved 12/23/08	Executed 2/25/09	\$1,095,020	
171	LS	Bridge Roll Out / Roll In	I&A 6/8/09	Approved 6/4/09	Executed 6/17/09	\$10,147,370	(\$328,820)
172	LS	Lead Paint Abatement and Access at YB-3	I&A 12/18/08	N/A	Executed 2/4/09	\$210,450	
174	FA	ETI Steel Barrier Rail Transition Fabrication	I&A 5/20/09	N/A	Executed 6/17/09	\$350,000	\$150,000
174S1		ETI Steel Barrier Rail Transition Fabrication Design Changes	N/A	N/A	Executed 11/4/09	\$0	



O 10	Status for E	ast Tie-In				\$144,840,502	\$4,857,554
247	LS	Install Vehicle Detection Station			5/19/10	\$338,570	\$338,570
246S1	LS	Rumble Strips – additional	N/A	N/A	In Progress Executed	\$32,000	\$32,000
246	LS	Rumble Strips	N/A	N/A	Executed 5/19/10	\$146,160	\$146,160
219	LS	Field Design Modifications Truss – Erection (U1, U8, L1, L8)	I&A 10/8/09	N/A	Executed 11/19/09	\$625,410	
207S1	FA	Additional Funds to Field Design Modifications Truss  – Fabrication (U1, U8, L1, L8)	N/A	N/A	Executed 10/27/09	\$100,000	(\$874,590)
207	FA	Field Design Modifications Truss – Fabrication (U1, U8, L1, L8)	I&A 7/16/09	N/A	Executed 7/28/09	\$400,000	
225S1	FA	Steel Double Handling Costs – Additional Funds		N/A	In Progress	\$100,000	
225	FA	Steel Double Handling Costs	I&A 9/17/09	N/A	Executed 10/08/09	\$500,000	\$600,000
216	FA	Pier E1 Barrier Rail Supports	N/A	N/A	Executed 10/08/09	\$175,000	\$175,000
204S1	FA	Additional Funds (If needed)		Approved 3/4/10	Executed 4/14/10	\$2,500,000	\$1,100,000
		Bearing Installation (Previously CCO 175)  Bearing Rail Installation (CCO 202 transmitted plans)					
204	FA	189) ETI Steel Barrier Rail Transition Installation (previously CCO 190) Stability Bracing at YBI (Previously CCO 175)	I&A 7/14/09	Approved 7/15/09	Executed 8/6/09	\$3,500,000	
		CCM's Labor Day Support Costs  Expansion Joint Seal Installation (previously CCO					
		District work – road signage, stage construction, SWPPP, Temp k-rail, etc		TBD	Future	\$268,125	
	-	ETI OGAC on Bridge Deck		TBD	Future	\$0	
235\$2	FA	Detour Traffic Improvements: Dynamic Message Signs	I&A 4/29/10	N/A	Executed 05/17/10	\$350,000	
235S1	FA	1/3 <sup>rd</sup> of Additional Detour Traffic Improvements	I&A 3/9/10	N/A	Executed 03/22/10	\$66,667	\$516,667
235	FA	1/3 <sup>rd</sup> of Detour Traffic Improvements	I&A 1/20/10	N/A	Executed 2/22/10	\$100,000	
198	Credit/ LS	20% of Job Wide Stripping Plan (ETI Portion)		N/A	Executed 12/14/09	\$59,893	\$11,478
186	LS	TMP (Lane Closures and CMS)	***	Approved 6/4/09	Executed 8/25/09	\$2,390,910	(\$609,090)
227		ETI Backfill		TBD	Executed 4/19/10	\$441,040	
212	LS	YB4 Roll Out Cut Free Demolition	I&A 9/2/09	N/A	Executed 10/08/09	\$209,720	\$1,448,316
217	LS	Skid Bent Demolition	I&A 10/14/09	Approved 9/18/09	Executed 11/19/09	\$3,152,900	
177	LS	Span YB-4 Demolition	I&A 9/17/09	Approved 9/2/09	Executed 10/12/09	\$11,249,560	
174S2	FA	ETI Steel Barrier Rail Transition Fabrication	I&A 11/5/09	N/A	Executed 11/4/09	\$150,000	

#### **Budget Status**

The Contractor's bid price to construct the Contractor's design for the East Tie-In was \$6.0M with an additional \$1.46M to demolish the remaining portion of the ETI YB-4 span. The Department's December 14, 2006 Strategy Memorandum estimated an additional cost of \$34.0M to construct the Department's ETI roll out/roll in design concept. At the time, this estimate was based on minimal design information available. The June 2009 revised additional cost estimate is \$140.0M, with the current projection at \$144.8M. CCOs executed to date are \$143.8M.

Yerba Buena Island Transition Structures Advance Foundations





#### **Progress of Work**

The YBITS foundation and column locations being advanced are W3R/L, W4R/L, W5R/L, W6R/L, W7R/L, W7 Ramp and the temporary E.B. onramp abutment.

W3

3L – substantially completed 3R – column (3<sup>rd</sup> lift of 3) in progress

4L – substantially completed W4

4R - substantially completed

5L – pile driving complete. Excavation around driven piles, footing and 1st lift column construction in W5 progress

5R – excavation and installation of shoring complete; pile driving complete; footing and 1<sup>st</sup> lift column construction in progress

W6 6L - substantially completed

6R North – column (3<sup>rd</sup> lift of 3) in progress

6R South - substantially completed

construction of the temporary soil nail wall and soldier pile shoring complete W7

7L North - substantially complete

7L South - substantially complete

7R - column (2<sup>nd</sup> lift of 2) in progress

Ramp – substantially completed

EΒ On-ramp abutment – temporary shoring piles and permanent CIDH piles have been installed

Demolition of the main portion of the old structure (Bent 48 to YB4) is in progress.

Demolition of the old YB-2 and YB-3 span are complete.

Demolition of span YB-1 to bent 48 in progress

Status of Contract Change Orders: YBI Transition Structures Advance Foundations

CCO	Method of Payment	Description	HQ Status	TBPOC Status	CCO Status	Current Estimate/ Actual Cost	Change from June 09 Approved Budget
64	FA	YBITS W3L Site Prep and Grading and Construct Access Road	N/A	N/A	Executed 1/8/07	\$150,000	
64S1	LS/FA	YBITS W3L Foundation and Column to Splice Zone, Integrated Shop Drawings for W3L, Concrete Washouts, 50% of Flagging, and Traffic Controls	I&A 3/13/07	Approved 2/15/07	Executed 4/4/07	\$5,835,000	
65	FA	Demo Exist Bridge Adv. Planning	N/A	Approved 4/14/08	Executed 4/18/08	\$175,000	
65S1	LS	Demolish Exist Bridge (Bent 48 to YB-4)	I&A 4/06/09	Approved 5/7/09	Executed 5/21/09	\$9,227,660	¢44.540
192	LS	Cable Bracing requires for Demolition of Spans YB-1, YB-2, and YB-3	N/A	N/A	Executed 8/13/09	\$111,540	\$11,540
229	FA	Maintenance Traveler Salvage	N/A	N/A	Executed 12/14/09	\$100,000	
70	FA	Integrated Shop Drawings for Remaining YBITS Advance Locations (W3R, W4L/R, W5L/R, W6L/R, W7L/R, and W7 Ramp)	I&A 4/04/07	N/A	Executed 5/1/07	\$500,000	
70S1	FA	YBITS Advance – ISD 3R, 4R/L, 5R/L, 6R/L, 7R/L & ramp	I&A 1/17/08	N/A	Executed 1/30/08	\$450,000	
73	LS	YBITS W3R, W4R, W5R/L, W6R/L, and W7 Ramp Foundations and Columns	I&A 10/24/07	Approved 10/30/07	Executed 11/19/07	\$62,958,990	
75	LS	YBITS W7R/L Foundations and Columns	I&A 4/2/08	Approved 4/3/08	Executed 4/14/08	\$13,125,000	
75S1	LS	Bent W7 Structure Backfill	I&A 7/7/09	Approved 7/15/09	Executed 7/31/09	\$910,810	(\$697,560)
241	LS	Bent W7 Drainage Modifications		N/A	Executed 4/6/10	\$141,630	
77	LS	YBITS W4L Foundations and Columns	I&A 6/13/07	Approved 7/27/07	Executed 7/20/07	\$7,125,000	
78	FA	Relocation of Sewer Force Main	N/A	N/A	Executed 7/17/07	\$125,057	
94	LS	YBITS Temp. EB Onramp Abutment Piles and Shoring	I&A 5/18/09	N/A	Executed 5/21/09	\$153,593	(\$146,407)



94S1		YBITS Temporary EB On Ramp Shoring & Grading		N/A	In Progress	\$100,000	
118	FA	Vibration & Elev. Monitoring at W5L	N/A	N/A	Executed 2/20/08	\$50,000	
118S1	FA/LS/ID	Nimitz House vibration monitoring	N/A	N/A	Executed 8/05/08	\$50,050	\$340,000
118S2	FA	Nimitz House vibration monitoring	N/A	N/A	Executed 12/14/09	\$40,000	
118S3	FA	Nimitz House vibration monitoring	I&A 2/16/10	N/A	Executed 2/22/10	\$100,000	
118S4	FA	Nimitz House vibration monitoring	I&A 4/20/10	N/A	Executed 4/27/10	\$100,000	
120	LS/Credit	CIDH Pile Mitigation Deduct	N/A	N/A	Executed 3/17/08	(\$400)	
124	FA/LS	Seismic Monitoring & Column Grounding	I&A 10/16/08	N/A	Executed 11/25/08	\$353,975	
124S1	LS	Seismic Monitoring & Column Grounding	N/A	N/A	Executed 05/19/10	\$1,100	\$1,100
126	FA	YBITS Excavation / Hazmat Disposal	I&A 4/7/08	Approved 4/3/08	Executed 4/17/08	\$500,000	
145	-	Revised Mass Concrete Spec. (Elimination of requirement from CCO's 73 & 75)	7/22/09	N/A	Executed 8/25/09	\$0	(\$157,730)
145S1	Credit	Credit for eliminated Mass Concrete Work		Current	In Progress	(\$657,730)	
147	LS	Add Cost W4R Foundation Construction	N/A	N/A	Executed 7/21/08	\$25,024	
155	FA	Excess Soil Offhaul	I&A 8/13/08	N/A	Executed 9/03/08	\$500,000	
159	LS	Redesign Bent W7 Soil Nail Wall	I&A 11/10/08	N/A	Executed 5/21/09	\$916,280	
165	LS	W7 Soil Nail Wall Delay Costs	I&A 4/20/09	N/A	Executed 4/08/09	\$152,208	
185	FA/ID	HazMat Excavation for Bridge Removal	8/10/09	N/A	Executed 8/25/09	\$106,000	\$106,000
211	LS	Duct Bank Revisions	N/A	N/A	Executed 8/13/09	\$129,152	\$34,772
232	LS/FA	Duct Bank Footing Removal & Drain Rock	N/A	N/A	Executed 11/19/09	\$105,620	φ34,112
248		Duct Bank Utility Conflicts	N/A	N/A	In Progress	\$50,000	\$50,000
Current S	Status for YI	BI Transition Structures Advance Foundations				\$103,710,559	(\$458,285)

#### **Budget Status**

The Department's December 25, 2006 Strategy Memorandum estimated the cost to construct Bents W3R/L, W4R/L, W5R/L, W6R/L, W7R/L, and W7 Ramp to be \$107M. In addition, the temporary E.B. onramp abutment shoring was added at a later date with no estimate revision. The Departments December 14, 2006 Strategy Memorandum estimated the additional demolition costs for the existing bridge (Bent 48 through YB-4) to be \$3.5M. The combined estimate for both was \$110.5M. The June 2009 revised additional cost estimate is \$104.3M with a current projection of \$103.7M. Total CCOs executed to date are \$104.2M.

#### Administrative Issues General CCOs



#### Progress of Work

Administrative issues that remain on the YBID contract are related to setting project milestones and determining time related overhead resulting from the contract time extensions, escalation costs, the increased scope of work, and other necessary changes to the contract.

The following list of target milestones has been incorporated into the project schedule. This information will be revised as more detailed schedule information is developed.



	Date	Status	Notes
W3L (foundation and column up to splice zone)	March 15 <sup>th</sup> , 2007	Complete	Finished 3/15/07
West Tie-In Phase 1 Viaduct Demo/Roll-In Complete	September 4 <sup>th</sup> , 2007	Complete	Finished 9/04/07
Access to W3R Available to CCM	Lianuary 2™ 2008		Coordinating access with SAS
Upper East Tie-In Area Available to CCM (Revised October 2008)	II )ecember 2009		Coordinating access with SAS
East Tie-In Roll-Out/Roll-In Complete (Revised October 2008)	September 7 <sup>th</sup> , 2009	Complete	Finished 9/8/09
Project Completion (Revised July 2009)	December 10, 2010		

The Department has extended TRO compensation at the original contract rate through December 10, 2010. The Contractor has completed a TRO audit. The Department is reviewing this information so that an appropriate TRO adjustment can be negotiated.

The Department continues to pursue a resolution to the remaining NOPC issues. Of the 18 NOPC issues, only three remain outstanding. Of the three it is anticipated that Viaduct CCO #128 will resolve NOPC #6, resolution of the existing structure demolition costs will resolve NOPC #15, and resolution of the TRO costs will resolve NOPC #18.

Status of Contract Change Orders: Administrative Issues

CCO	Method of Payment	Description	HQ Status	TBPOC Status	CCO Status	Current Estimate/ Actual Cost	Change from June 09 Approved Budget
1 S2	FA	Flagging & Traffic Control	N/A	N/A	Executed 12/5/07	\$200,000	
1S3	FA	Flagging & Traffic Control	N/A	N/A	Executed 7/2/08	\$300,000	
1S4	FA/LS	Flagging & Traffic Control	N/A	N/A	Executed 7/9/09	(\$57,580)	(\$57,580)
1S5	FA	Flagging & Traffic Control	I&A 2/16/10	N/A	Executed 2/23/10	\$250,000	\$250,000
1S6	FA	Flagging & Traffic Control	In Progress	In Progress	In Progress	\$500,000	\$500,000
8S1	FA	Add Funds for SWPPP Maint Sharing	N/A	N/A	12/14/09	\$25,000	\$25,000
11S1	FA	Add Funds for Utility Potholing	N/A	N/A	12/14/09	\$25,000	\$25,000
13S1	FA	PMIV Additional Funds	I&A 3/10/08	N/A	Executed 3/17/08	\$300,000	
39S1	FA	Additional Funds for Shuttle Service to USCG	I&A 3/18/09	N/A	Executed 3/30/2009	\$500,000	\$200,000
39S2	FA	Additional Funds for Shuttle Service to USCG		N/A	Executed 2/22/10	\$200,000	φ200,000
45 S1	LS	Additional SWPPP	I&A 12/14/07	N/A	Executed 1/31/08	\$350,000	
51	LS	NOPC 12 & 13 Resolution	N/A	N/A	Executed 8/17/06	\$25,234	
52	0	Elimination of Contractor's Design of Tie-Ins	I&A 1/19/07	N/A	Executed 3/2/07	\$0	
53	FA	Handling and Storage of Material	I&A 11/06/06	N/A	Executed 12/8/06	\$240,000	
56	LS	Contractor's Design additional cost Resolved NOPCs 2,3,4,8,9,10,11,14, and 16	I&A 2/20/08	Approved 3/5/08	Executed 3/17/08	\$6,837,310	
57	LS	Demolition of Building 206	N/A	N/A	Executed 10/18/06	\$22,378	
57S1	LS	Remove and Clear Building 254	N/A	N/A	Executed 6/4/07	\$10,572	
66S1	FA	Video/Photo Documentation Services Supplemental Funds	N/A	N/A	Executed 4/14/08	\$200,000	
66S2	FA	Video/Photo Documentation Services Supplemental Funds	I&A 9/17/09	N/A	Executed 9/22/09	\$200,000	
86	LS	Additional Suspension Costs	N/A	N/A	Executed 5/19/08	\$42,764	
91	LS	Contract Days Extension/TRO Compensation to November 08	RPP 8/28/07	TBD	Executed 10/31/07	\$1,818,948	
91 S1	LS	Base Contract TRO Extension to September 1, 2009	I&A 10/25/07	Approved	Executed	\$8,463,159	



				10/30/07	11/16/07		
91 S2	LS	Base Contract TRO Extension to December 10, 2010	I&A 9/2/09	Approved 7/15/09	Executed 10/08/09	\$5,494,737	
114		Global TRO Audit	N/A	N/A	Executed 1/20/10	\$30,000	
114 S1		Global TRO Adjustment		TBD	In Progress	\$6,475,263	
96	FA	SWPPP Steep Slope Stabilization Measures	N/A	N/A	Executed 1/4/08	\$190,000	
96S1	FA	Add Funds Shotcrete Slope at Bent 48	N/A	N/A	Executed 7/2/08	\$40,000	
109	FA	MEP Coordination	N/A	N/A	Executed 1/30/08	\$100,000	
110	FA	Geotech. Exploration Pads and Support	N/A	N/A	Executed 2/20/08	\$150,000	
119	FA/LS/ID/ UP	Project Wide SWPPP	I&A 4/07/08	N/A	Executed 4/17/08	\$638,939	
119S1	FA	Project Wide SWPPP (Additional Funds)	I&A 9/2/09	N/A	Executed 9/3/09	\$300,000	\$300,000
119S2	FA	Project Wide SWPPP (Additional Funds)	I&A 12/17/09	Approved 12/5/09	Executed 12/21/09	\$850,000	\$850,000
119S3	FA	Project Wide SWPPP (Additional Funds)	I&A 05/05/10	Approved 05/06/10	Executed 05/20/10	\$600,000	\$600,000
123	FA	Treasure Island Yard Lot Rental	I&A 4/16/08	N/A	Executed 4/17/08	\$600,000	\$350,000
123S1	FA	Additional Funds for Treasure Island Yard Lot Rental	I&A 10/8/09	N/A	Executed 10/26/09	\$350,000	<b>4000</b> ,000
125	FA	Project Access Paving	N/A	N/A	Executed 4/04/08	\$150,000	
125S1	FA	Additional Funds, Project Access Paving	I&A 6/12//08	N/A	6/25/08	\$35,000	\$150,000
125S2	FA	Additional Funds, Project Access Paving	I&A 4/20/09	N/A	Executed 4/23/09	\$100,000	. ,
125S3	FA	Additional Funds, Project Access Paving	I&A 9/17/09	N/A	9/22/09	\$50,000	
130	LS	Project Retention	I&A 4/07/08	N/A	Executed 4/14/08	\$136,510	
131	FA	Delete Permanent Erosion Control Items	N/A	N/A	Executed 5/6/09	(\$74,502)	
132	LS	Storm Damage Slope Repair (Resolved NOPC 17)	N/A	N/A	Executed 5/23/08	\$23,870	
139	-	Revised ESA's	N/A	N/A	5/23/08	\$0	
142	FA	Macalla Road Sinkhole Repair	N/A	N/A	Executed 7/18/08	\$150,000	
146	FA	Macalla Road Tree Trimming	N/A	N/A	Executed 7/21/08	\$50,000	
146S1	FA	Add Funds Macalla Road Tree Trimming	N/A	N/A	Executed 11/25/08	\$50,000	\$280,000
146S2	FA	Add Funds Macalla Road Tree Trimming	N/A	N/A	Executed 2/16/10	\$80,000	<b>,</b> ,
146S3	FA	Add Funds Macalla Road Tree Trimming	N/A	N/A	Executed 05/20/10	\$100,000	
151	-	Public Safety Spec Change (Suspended Load)	N/A	N/A	Executed 9/23/08	\$0	
157	FA	USCG Access Mitigation Stairway Design to Quarters Above		N/A	1/28/09	\$150,000	
176	FA	Construction Staking	N/A	N/A	Executed 4/08/09	\$100,000	
		Non CCO ChargesCOZEEP, lead survey, respirator training (Q48)			In Progress	\$1,323,000	
182	FA	USCG use parking lots at WTI area Quarters 8		N/A	1/20/10	\$180,000	\$100,000
182S1	FA	USCG use parking lots at WTI area Quarters 8, additional parking and revised plans		N/A	Executed 2/26/10	\$220,000	ψ.55,000
182S2	FA	USCG use parking lots at WTI area Quarters 8, parking lot Details and Lighting			In Progress	\$250,950	\$250,950
183		Contract Item Deletions			In Progress	(\$1,425,459)	(\$1,425,459)



Current St	tatus for	Administrative and General CCOs				\$42,945,071	\$5,262,226
252		Demo Impacts – USCG and Asbestos pipes		In Progress	In Progress	\$50,000	50,000
250		USCG Fence on Goat Slope		In Progress	In Progress	\$180,000	180,000
244	LS	USCG Impacts to Demo & Concrete Removal at Bent 48			In Progress	\$27,181	\$27,180
240S2	LS	Additional Night Lane Closures (To October 31, 10)	I&A 4/15/10	Approved 04/01/10	Executed 5/17/10	\$491,680	
240S1	LS	Additional Night Lane Closures (To April 5, 10)	I&A 3/03/10	Approved 2/11/10	Executed 4/6/10	\$298,940	\$1,738,660
240	LS	Mainline Night Lane Closures	I&A 1/26/10	N/A	Executed 2/23/10	\$948,040	
239		Truck accident Clean up(11-9-09)		N/A	Executed 2/8/10	\$55,263	\$55,263
237	LS	Temporary Trestle Extended Rental		N/A	Executed 4/14/10	\$267,510	\$267,510
230	FA	USCG Shuttle for WB Onramp Closure	I&A10/29/09	N/A	Executed 11/19/09	\$600,000	\$600,000
228	FA	Added Call Boxes & SCADA	N/A	N/A	Executed 05/19/10	\$15,980	\$15,980
224	FA	Treasure Island Material Storage Yard	I&A 9/17/09	N/A	Executed 10/08/09	\$400,000	\$400,000
		Macalla Road Repairs		N/A	In Progress	\$200,000	
		PIO Office Labor Day Outreach		N/A	In Progress	\$200,000	
-	-	Permanent Gawk Screen on North Side Detour Rail – CCO Deleted				\$0	(\$200,000)
203	LS	SSD Base Camera's	N/A	N/A	Executed 10/08/09	\$196,884	(\$503,116)
195S1	FA	USCG Stairway additional funds		N/A	Executed 4/8/10	\$450,000	\$150,000
195	FA	USCG Stair Access to Quarters 9 along Goat Slope	7/31/09	N/A	Executed 8/25/09	\$500,000	\$150,000
188S1	LS	Sound Control Impacts to W6 & W7 Pile Driving		N/A	Executed 4/1/10	Ψ142,500	ψ <del>-</del> -2,000
188	-	Sound Control Requirements, pile driving restrictions (Specification Only)	6/23/09	N/A	Executed 8/25/09	\$142,500	\$42,500

#### **Budget Status**

As of June 2009 the revised additional cost estimate for Time Related Overhead, escalation issues, and job wide changes is \$37.8M with the largest estimated cost being attributed to a global TRO adjustment. As Contract Change Orders for these items are negotiated, this estimate will be updated. Costs related to settlement of NOPC issues not captured here will be paid out of the contract contingency.

Total CCOs executed to date are \$35.1M.



#### Memorandum

TO: Toll Bridge Program Oversight Committee DATE: May 26, 2010

(TBPOC)

FR: Andrew Fremier, Deputy Executive Director, BATA

**RE:** Agenda No. - 3a

**Progress Reports** 

Item- Draft Project Progress and Financial Update May 2010

#### **Recommendation:**

For Information/ APPROVAL Confirmation

#### **Cost:**

N/A

#### **Schedule Impacts:**

N/A

#### Discussion:

Included in this packet is a Draft Project Progress and Financial Update May 2010 for TBPOC information. The final version with the most current actual costs and forecasts and progress pictures will be reviewed and approved by the PMT, through TBPOC-delegated authority, and distributed on June 8, 2010. The PMT requests TBPOC confirmation of this approval.

#### **Attachment(s):**

Draft Project Progress and Financial Update May 2010 (see end of binder)

# San Francisco Bay Area Toll Bridge Seismic Retrofit and Regional Measure 1 Programs

**Project Progress and Financial Update May 2010** 





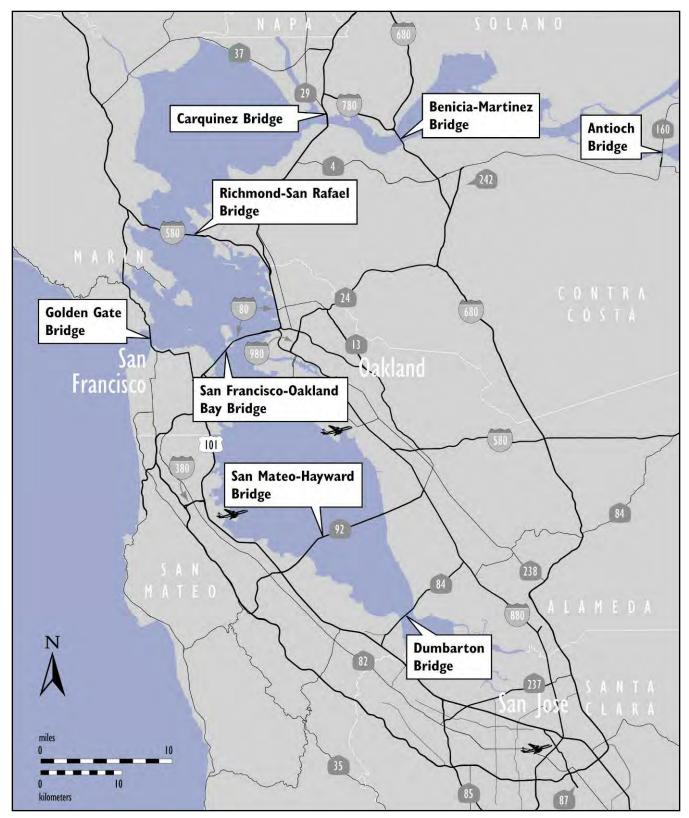
Released: June 2010



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### Map of Bay Area Toll Bridges



<sup>\*</sup> The Golden Gate Bridge is owned and operated by the Golden Gate Bridge, Highway, and Transportation District.

### Introduction

In July 2005, Assembly Bill (AB) 144 (Hancock) created the Toll Bridge Program Oversight Committee (TBPOC) to implement a project oversight and project control process for the Benicia-Martinez Bridge and State Toll Bridge Seismic Retrofit Program projects. The TBPOC consists of the Caltrans Director, the Bay Area Toll Authority (BATA) Executive Director and the Executive Director of the California Transportation Commission (CTC). The TBPOC's project oversight and control processes include, but are not limited to, reviewing bid specifications and documents, providing field staff to review ongoing costs, reviewing and approving significant change orders and claims in excess of \$1 million (as defined by the Committee) and preparing project reports. AB 144 identified the Toll Bridge Seismic Retrofit Program and the new Benicia-Martinez Bridge Project as being under the direct oversight of the TBPOC.

On October 11, 2009, Governor Schwarzenegger approved Assembly Bill 1175 that added the Dumbarton and Antioch Bridges to the Toll Bridge Seismic Retrofit Program. A toll increase on the Bay Area's seven state-owned toll bridges will go into effect on July 1, 2010, in part, to fund the seismic retrofit of the Dumbarton and Antioch bridges. The current status of the Toll Bridge Seismic Retrofit Program is as follows:

Toll Bridge Seismic Retrofit Projects	Seismic Safety Status
Dumbarton Seismic Retrofit Project	Advertised
Antioch Bridge Seismic Retrofit	Awarded
San Francisco-Oakland Bay Bridge East Span Replacement	Construction
San Francisco-Oakland Bay Bridge West Approach Replacement	Complete
San Francisco-Oakland Bay Bridge West Span Seismic Retrofit	Complete
San Mateo-Hayward Bridge Seismic Retrofit	Complete
Richmond-San Rafael Bridge Seismic Retrofit	Complete
1958 Carquinez Bridge Seismic Retrofit	Complete
1962 Benicia-Martinez Bridge Seismic Retrofit	Complete
San Diego-Coronado Bridge Seismic Retrofit	Complete
Vincent Thomas Bridge Seismic Retrofit	Complete

The new Benicia-Martinez Bridge is part of a larger program of toll-funded projects called the Regional Measure 1 (RM1) Toll Bridge Program under the responsibility of BATA and Caltrans. While the rest of the projects in the RM1 program are not directly under the responsibility of the TBPOC, BATA and Caltrans will continue to report on their progress as an informational item. The RM1 program includes:

Regional Measure 1 Projects	Open to Traffic Status
Interstate 880/State Route 92 Interchange Reconstruction	Construction
New Benicia-Martinez Bridge	Open
Richmond-San Rafael Bridge Deck Overlay Rehabilitation	Open
Richmond-San Rafael Bridge Trestle, Fender & Deck Joint Rehabilitation	Open
Westbound Carquinez Bridge Replacement	Open
San Mateo-Hayward Bridge Widening	Open
State Route 84 Bayfront Expressway Widening	Open
Richmond Parkway	Open

### SUMMARY OF MAJOR PROJECT HIGHLIGHTS, ISSUES, AND ACTIONS



SAS - Crossbeam(CB)1 Being Placed on Temporary Support Structure



SAS - Joining of Two Roadway Boxes



SAS - View of Eastbound Roadway Boxes Placed on the Temporary Structure

# Toll Bridge Seismic Retrofit Program Risk Management

A major element of the 2005 AB144, the law creating the TBPOC, was legislative direction to implement a more aggressive risk management program. Such a program has been implemented in stages over time to ensure development of a robust and comprehensive approach to risk management. We have reached a milestone with our risk management program with all elements now fully incorporated, resulting in one of the most detailed and comprehensive risk management programs in the country today.

A comprehensive risk assessment is performed for each project in the program. Based upon those assessments, a forecast is developed using the average cost of risk. These forecasts can both increase and decrease as risks are identified, resolved or retired. Nonetheless, we want to ensure that the public is informed of the risks we have identified and the possible expense they could necessitate.

As of the end of the first quarter 2010, the 50 percent probable draw on program contingency is \$526 million with a potential draw that ranges from about \$300 million to \$700 million. The total current program contingency budget is \$948 million, which was recently increased by \$190 million with the inclusion of the Antioch Bridge and Dumbarton Bridge retrofits into the Toll Bridge Seismic Retrofit Program (TBSRP).

Given the current program contingency budget balance, there are sufficient funds to cover the cost of identified risks. Risk mitigation actions are continuously being developed and implemented to reduce the potential draw on the contingency.

# San Francisco-Oakland Bay Bridge (SFOBB) East Span Seismic Replacement Project SAS Superstructure Contract

The prime contractor constructing the Self-Anchored Suspension (SAS) Bridge from the completed Skyway to Yerba Buena Island is a joint venture of American Bridge/Fluor (ABF). Significant progress is being made both here in the Bay Area and around the world. The first 12 of 28 steel roadway boxes have arrived with 8 already having been lifted into place. These boxes, fabricated in



SFO Bay Bridge Detour Structure Completed over the Labor Day Weekend

Shanghai, China, join other bridge components that have been arriving from around the country and the world. Shipments of roadway and tower boxes will continue throughout the year. The first shipment of tower boxes, the longest and heaviest sections, is expected to arrive this summer. All bridge components undergo a rigorous quality review by the fabricator, ABF, and Caltrans to ensure that only bridge components that have been built in accordance to the specifications will be shipped.

On the critical path to completing the bridge is the fabrication of the last roadway sections at the east end of the new span, which unfortunately are also the most complex to fabricate. Furthermore, the start of fabrication of these segments has fallen behind schedule due to delays in the fabrication drawing preparation process. While steps have been taken to ensure completion of the shop drawings, efforts are now focused on accelerating the fabrication of the boxes.

With our goal of achieving seismic safety by moving traffic off the old bridge and onto the new as soon as possible, we are exploring all risk-mitigating options to get the new bridge to traffic by our 2013 target. One option being discussed is a "seismic safety opening" of the bridge to traffic before non-essential structural and traffic systems are completed, like architectural lighting or removal of unneeded temporary support structures. We will continue to report to you on our progress on the project in subsequent reports.

Caltrans has established risk management teams to identify and evaluate our challenges and future potential risks to completing the project on time and on budget. In particular, teams are reviewing cable-erection plans and mitigation actions. Based on the latest risk management assessment, there is a potential for a \$238 million increase on the SAS contract.

### Yerba Buena Island Detour Contract

The Yerba Buena Island Detour contractor, C.C. Myers, has rolled out the existing bridge span and rolled in the new east tie-in span of the detour structure that diverts traffic off the existing bridge to the detour structure that now ties into the Yerba Buena Island Tunnel. The traffic switch occurred as scheduled on Labor Day weekend. Work is now progressing on the demolition of the old approach span and construction of a number of accelerated foundations for the future transition structures from the Self-Anchored Suspension (SAS) bridge to the tunnel. Upon removal of the old approach span, the area will be turned over to the Yerba Buena Island Transition Structures (YBITS) #1 contractor that will construct the new approach structures.

# Yerba Buena Island Transition Structures #1 Contract

The YBITS#1 contract has been awarded to MCM Construction, the same contractor completing the Oakland Touchdown (OTD) #1 contract. Construction will not start until the demolition of the existing approach has been completed. Caltrans and the contractor are in the submittal and planning process for the contract.

### SUMMARY OF MAJOR PROJECT HIGHLIGHTS, ISSUES, AND ACTIONS



Oakland Touchdown #1 Bike Path Railing



Oakland Touchdown # Trestle Removed and Equipment Service Platforms Installed



Mock-Up of Dumbarton/Antioch Pier Columns Undergoing Seismic Testing

### Oakland Touchdown #1 Contract

The Oakland Touchdown (OTD) #1 contractor, MCM Construction, continues to be on schedule with a forecast completion date of June 2010. The contract constructs the westbound approach from the toll plaza to the skyway structure and the portion of the eastbound approach that is not in conflict with the existing bridge structure. The remaining approach work will be completed by a future OTD #2 contract.

### **TBSRP Capital Outlay Support**

Based on initial discussions with our contractors, early completion of the East Span Project was believed to be possible and sufficient to mitigate potential identified support cost increases. The support cost increases are primarily due to the need to re-advertise the SAS contract and to decisions made to increase our opportunities for early completion of the East Span Project. These decisions include a 12-month schedule extension provided during bid time to attract the maximum number of bidders for the SAS contract and extension of the YBI Detour contract to advance future foundation and column work of the transition structure and west-end deck reconstruction. Since we now judge early completion and the intended cost savings to be unlikely, we forecast a potential drawdown of \$303 million from the program contingency for project support. While the TBPOC will continue to seek opportunities to economize in this area, a budget change will be necessary.

### **TBSRP Programmatic Risks**

This category includes risks that are not yet scoped within existing contracts and/or that spread across multiple contracts. The interdependencies between all of the contracts in the program result in the potential for one contract's delay to impact the other contracts.

### **Dumbarton Bridge Seismic Retrofit**

When first conceived, the Toll Bridge Seismic Retrofit Program only identified seven of the nine state owned toll bridges to be in need of seismic retrofit, which excluded the Dumbarton and Antioch Bridges. Further seismic vulnerability studies completed by Caltrans and BATA on those structures determined that both structures were in need of retrofit based on current seismic standards.



**Antioch Bridge** 



**Dumbarton Bridge** 



Site Preparation for New Route 92 and Interstate 880 Separator

On October 11, 2009, Governor Schwarzenegger signed Assembly Bill 1175, which added the Dumbarton and Antioch Bridges to the Toll Bridge Seismic Retrofit Program. In part to fund these seismic retrofits, a toll increase on the seven state-owned toll bridges in the Bay Area will go into effect on July 1, 2010. The Dumbarton Bridge Seismic Retrofit Contract was advertised in March and bid opening is scheduled for late May 2010.

### **Antioch Bridge Seismic Retrofit**

Bids for the Antioch Bridge Retrofit Contract were opened on March 10, 2010. The contract was awarded to California Engineering Contractors, Inc. on April 22, 2010. The awarded contract was significantly less than the engineer's estimate for the work and has resulted in a significant cost forecast reduction. The TBPOC is recommending that the budget for the project be reduced to account for the low bid. The original budget for the project was \$267 million. Because of the low bid, the TBPOC is forecasting a need of only \$130 million. The retrofit is forecast to be completed by May 2012.

# Regional Measure 1 Toll Bridge Program (RM1)

# Interstate 880/State Route 92 Interchange Reconstruction Project

On this interchange reconstruction project, the new eastbound State Route 92 to northbound Interstate 880 direct connector structure (ENCONN) was completed and opened to detour traffic on May 16, 2009. Caltrans plans to open the southern half of the separation structure to detour traffic to allow for construction of the remaining northern half of the structure in April 2010. The project is forecast to be substantially completed as planned in June 2011, pending weather or unforeseen construction delays.

# Toll Bridge Seismic Retrofit Program Cost Summary Contract AB 144/SB 66 TBPOC

Status

Budget (July 2005)

**Approved** Changes

Current **TBPOC** Approved Budget (April 2010)

Cost to Date (March 2010) **Current Cost** Forecast (April 2010)

Cost Variance

Cost Status

				( 4 2)				
		а	b	c = a + b	d	е	f = e - c	
SFOBB East Span Seismic Replacement								
Capital Outlay Construction								
Skyway	Completed	1,293.0	(38.9)	1,254.1	1,236.9	1,254.1	-	•
SAS Marine Foundations	Completed	313.5	(32.6)	280.9	274.8	280.9	-	•
SAS Superstructure	Construction	1,753.7	-	1,753.7	979.8	1,991.4	237.7	•
YBI Detour	Construction	132.0	360.9	492.9	429.1	486.3	(6.6)	•
YBI Transition Structures (YBITS)		299.3	(93.0)	206.3	1.1	220.2	13.9	•
YBITS 1	Construction			144.0	1.1	156.9	12.9	•
YBITS 2	Design			59.0	-	60.0	1.0	•
YBITS Landscaping	Design			3.3	-	3.3	-	•
Oakland Touchdown (OTD)		283.8	4.2	288.0	206.4	283.0	(5.0)	•
OTD 1	Construction			212.0	198.5	211.2	(0.8)	•
OTD 2	Design			62.0	-	57.8	(4.2)	•
OTD Electrical Systems	Design			4.4	-	4.4	-	•
Submerged Electric Cable	Completed			9.6	7.9	9.6	-	•
Existing Bridge Demolition	Design	239.2	(0.1)	239.1	-	232.4	(6.7)	•
Stormwater Treatment Measures	Completed	15.0	3.3	18.3	16.7	18.3	-	•
Other Completed Contracts	Completed	90.3	-	90.3	89.2	90.3	-	•
Capital Outlay Support		959.3	-	959.3	829.2	1,262.2	302.9	•
Right-of-Way and Environmental Mitigation		72.4	-	72.4	51.2	72.4	-	•
Other Budgeted Capital		35.1	(3.3)	31.8	0.7	7.7	(24.1)	•
Total SFOBB East Span Replacement		5,486.6	200.5	5,687.1	4,115.1	6,199.2	512.1	
Antioch Bridge Seismic Retrofit								•
Capital Outlay Construction and Mitigation	Construction	-	156.0	156.0	-	70.0	(86.0)	•
Capital Outlay Support		-	39.0	39.0	15.3	31.0	(8.0)	•
Total Antioch Bridge Seismic Retrofit		-	195.0	195.0	15.3	101.0	(94.0)	
Dumbarton Bridge Seismic Retrofit								•
Capital Outlay Construction and Mitigation	Advertised	-	270.0	270.0	0.3	171.9	(98.1)	•
Capital Outlay Support		-	95.0	95.0	21.2	103.1	8.1	•
Total Dumbarton Bridge Seismic Retrofit		-	365.0	365.0	21.5	275.0	(90.0)	
Other Program Projects		2,268.4	(58.8)	2.209.6	2,157.9	2,192.6	(17.0)	•
Miscellaneous Program Costs		30.0	-	30.0	24.7	30.0	-	•
Net Programmatic Risks		-	-	-	-	78.0	78.0	•
Program Contingency		900.0	48.3	948.3	-	422.2	(526.1)	•
Total Toll Bridge Seismic Retrofit Program		8,685.0	750.0	9,435.0	6,334.5	9,298.0	(137.0)	•

Within approved schedule and budget

Identified potential project risks that could significantly impact approved schedules and budgets if not mitigated Known project impacts with forthcoming changes to approved schedules and budgets

# Toll Bridge Seismic Retrofit Program Schedule Summary AB144/SB 66 TBPOC Current TBPOC

Ton Bridge Seisinie Rec	AB144/SB 66 Project Completion Schedule Baseline (February 2005)	TBPOC Approved Changes (Months)	Current TBPOC Approved Completion Schedule (April 2010)	Current Completion Forecast (April 2010)	Schedule Variance (Months)	Schedule Status	Remarks/Notes
	g	h	i = g + h	j	k = j - i	1	
SFOBB East Span Seismic Replacement							
Contract Completion							
Skyway	Apr 2007	8	Dec 2007	Dec 2007	-	•	See Page 30
SAS Marine Foundations	Jun 2008	(5)	Jan 2008	Jan 2008	÷	•	See Page 20
SAS Superstructure	Mar 2012	12	Mar 2013	Oct 2013	7	•	See Page 24
YBI Detour	Jul 2007	41	Dec 2010	Dec 2010	-	•	See Page 17
YBI Transition Structures (YBITS)	Nov 2013	12	Nov 2014	Mar 2015	4		See Page 18
YBITS 1			Sep 2013	Dec 2013	3	•	
YBITS 2			Nov 2014	Mar 2015	4	•	
YBITS Landscaping			TBD	TBD	-	•	
Oakland Touchdown	Nov 2013	12	Nov 2014	Mar 2015	4		See Page 31
OTD 1			May 2010	June 2010	1	•	
OTD 2			Nov 2014	Mar 2015	4	•	
OTD Electrical Systems			TBD	TBD	-	•	
Submerged Electric Cable			Jan 2008	Jan 2008	-	•	
Existing Bridge Demolition	Sep 2014	12	Sep 2015	Dec 2015	3	•	
Stormwater Treatment Measures	Mar 2008	-	Mar 2008	Mar 2008	-	•	
SFOBB East Span Bridge Opening and Oth	ner Milestones						
OTD Westbound Access			Aug 2009	Aug 2009	-	•	
YBI Detour Open			Sep 2009	Sep 2009	-	•	See Page 16
Westbound Open	Sep 2011	12	Sep 2012	April 2013	7	•	
Eastbound Open	Sep 2012	12	Sep 2013	Dec 2013	3	•	
Antioch Bridge Seismic Retrofit							
Contract Completion			Aug 2012	May 2012	(3)	•	See page 36
Dumbarton Bridge Seismic Retrofit							
Contract Completion			Sep 2013	Sep 2013	-	•	See Page 37

Notes: 1) Figures may not sum up to totals due to rounding effects.
2) TBSRP Forecasts for the Monthly Reports are generally updated on a quarterly basis in conjunction with quarterly risk analysis assessments for the TBSRP Projects.

### Regional Measure 1 Program Cost Summary

	Contract Status	BATA Baseline Budget (July 2005)	BATA Approved Changes	Current BATA Approved Budget (April 2010)	Cost to Date (March 2010)	Current Cost Forecast (April 2010)	Cost Variance	Cost Status
		a	b	c = a + b	d	е	f = e - c	
Interstate 880/Route 92 Interchange Recons	truction							
Capital Outlay Construction	Construction	94.8	60.2	161.0	92.5	161.0	-	•
Capital Outlay Support		28.8	34.6	63.4	52.6	63.4	-	•
Capital Outlay Right-of-Way		9.9	7.0	16.9	12.0	16.9	-	•
Project Reserve		0.3	3.4	3.7	-	3.7	-	
Total I-880/SR-92 Interchange Reconstruction		133.8	111.2	245.0	157.1	245.0	-	
Other Completed Program Projects		1,978.8	182.6	2,161.4	2,086.0	2,161.4	-	
Total Regional Measure 1 Toll Bridge Program		2,112.6	293.8	2,406.4	2,243.1	2,406.4	-	

Within approved schedule and budget Identified potential project risks that could significantly impact approved schedules and budgets if not mitigated Known project impacts with forthcoming changes to approved schedules and budgets

### Regional Measure 1 Program Schedule Summary

BATA Baseline Completion Schedule (July 2005)	BATA Approved Changes (Months)	Current BATA Approved Completion Schedule (April 2010)	Current Completion Forecast (April 2010)	Schedule Variance (Months)	Schedule Status	Remarks/Notes
g	h	i = g + h	j	k=j-i	1	
•	•	•	•	•	•	

Interstate 880/Route 92 Interchange Reconstruction

Contract Completion

Interchange Reconstruction Dec 2010 6 Jun 2011 Jun 2011 - See Page 48

 $\textbf{Notes:} \quad \textbf{1) Figures may not sum to totals due to rounding effects}.$ 



### San Francisco-Oakland Bay Bridge Seismic Retrofit Strategy

When a 250-ton section of the upper deck of the East Span collapsed during the 7.1-magnitude Loma Prieta Earthquake in 1989, it was a wake-up call for the entire Bay Area. While the East Span quickly reopened within a month, critical questions lingered: How could the Bay Bridge—a vital regional lifeline structure—be strengthened to withstand the next major earthquake? Seismic experts from around the world determined that to make each separate element seismically safe on a bridge of this size, the work must be divided into numerous projects. Each project presents unique challenges. Yet there is one common challenge — the need to accommodate the more than 280,000 vehicles that cross the bridge each day.



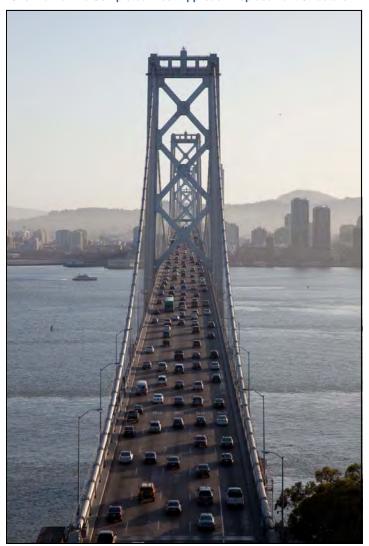
**Overview of the Completed West Approach Replacement Structure** 

### West Approach Seismic Replacement Project Project Status: Completed 2009

Seismic safety retrofit work on the West Approach in San Francisco—bounded on the west by 5th Street and on the east by the anchorage of the west span at Beale Street—involved completely removing and replacing this one-mile stretch of Interstate 80, as well as six on-and off-ramps within the confines of the West Approach's original footprint. This project was completed on April 8, 2009.

# West Span Seismic Retrofit Project Project Status: Completed 2004

The West Span lies between Yerba Buena Island and San Francisco and is made up of two complete suspension spans connected at a center anchorage. Retrofit work included adding massive amounts of steel and concrete to strengthen the entire West Span, along with new seismic shock absorbers and bracing.



West Span of the Bay Bridge

### **East Span Seismic Replacement Project**

Rather than a seismic retrofit, the two-mile-long East Span is being completely rebuilt. When completed, the new East Span will consist of several different sections, but will appear as a single streamlined span. The eastbound and westbound lanes of the East Span will no longer include upper and lower decks. The lanes will instead be parallel, providing motorists with expansive views of the bay. These views will also be enjoyed by bicyclists and pedestrians, thanks to a new path on the south side of the bridge that will extend all the way to Yerba Buena Island. The new span will be aligned north of the existing bridge to allow traffic to continue to flow on the existing bridge as crews build the new span.

The new span will feature the world's longest Self-Anchored Suspension (SAS) bridge that will be connected to an elegant roadway supported by piers (Skyway), which will gradually slope down toward the Oakland shoreline (Oakland Touchdown). A new transition structure on Yerba Buena Island (YBI) will connect the SAS to the YBI Tunnel and will transition the East Span's side-by-side traffic to the upper and lower decks of the tunnel and West Span.

When construction of the new East Span is complete and vehicles have been safely rerouted to it, the original East Span will be demolished.



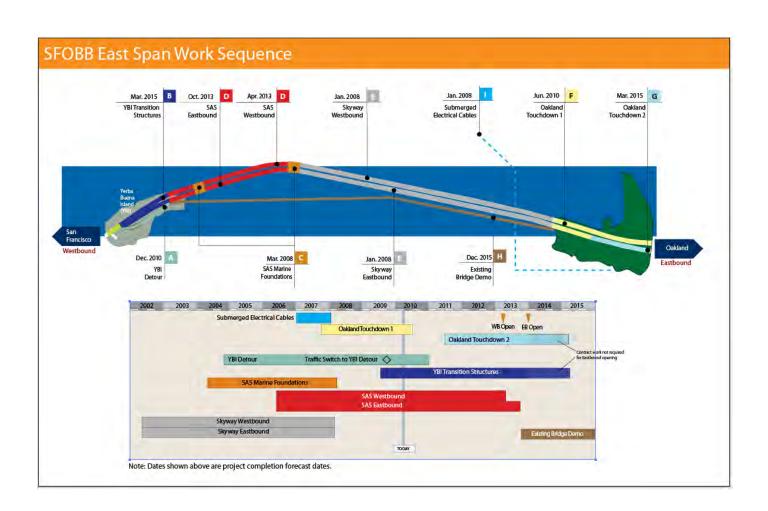
Architectural Rendering of Skyway and the New Self-Anchored Suspension Bridge Looking Towards Yerba Buena Island



# San Francisco-Oakland Bay Bridge East Span Replacement Project Summary

The new East Span bridge can be split into four major components—the Skyway and the Self-Anchored Suspension bridge in the middle and the Yerba Buena Island Transition Structures and Oakland Touchdown approaches at either end. Each component is being constructed by one to three separate contracts that all have been sequenced together.

Highlighted below are the major East Span contracts and their schedules. The letter designation before each contract corresponds to contract descriptions in the report.



# San Francisco-Oakland Bay Bridge East Span Replacement Project Yerba Buena Island Detour (YBID)

As with all of the Bay Bridge's seismic retrofit projects, crews must build the Yerba Buena Island Transition Structures (YBITS) without disrupting traffic. To accomplish this daunting task, YBID eastbound and westbound traffic was shifted off the existing roadway and onto a temporary detour on Labor Day weekend 2009. Drivers will use this detour, just south of the original roadway, until traffic is moved onto the new East Span.



Successful Labor Day Weekend 2007 Roll-In Structure to the

### **A YBID Contract**

Contractor: C.C. Myers Inc.
Approved Capital Outlay Budget: \$492.9 M
Status: 91% Complete as of April 2010

This contract was originally awarded in early 2004 to construct the detour structure for the planned 2006 opening of the new East Span. Due to the re -advertisement of the SAS superstructure contract in 2005 because of a lack of funding at the time, the bridge opening was rescheduled to 2013. To better integrate the contract into the current East Span schedule and to improve seismic safety and mitigate future construction risks, the TBPOC has approved a number of changes to the contract, including adding the deck replacement work near the tunnel that was rolled into place over Labor Day weekend 2007, advancing future transition structure foundation work and making design enhancements to the temporary detour structure. These changes have increased the budget and forecast for the contract to cover the revised project scope and potential project risks.

### **Tunnel Approach Roadway Replacement**

The first in a series of activities to open the detour viaduct was completed in 2007 with the replacement of a 350-footlong stretch of upper-deck roadway just east of the Yerba Buena Island Tunnel. During this historic milestone, the entire Bay Bridge was closed over the 2007 Labor Day weekend so crews could demolish and replace

the old section of the deck with a seismically upgraded 6,500-ton precast section of viaduct that was literally pushed into place (see photo above).

Status: Completed.

### **Detour Viaduct Fabrication and Construction**

The "S-Curve" detour viaduct runs parallel to the alignment of the old approach structure from the tunnel to the cantilever spans of the East Span. The viaduct looks quite similar to the structure it is replacing with steel cross beams and girders and upper and lower concrete roadway decks.

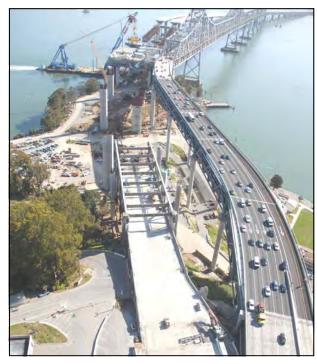
**Status:** The final 288-foot portion of the detour truss was rolled into place during a full bridge closure over Labor Day Weekend in 2009. Speed limits have been reduced on the viaduct to take the new alignment into account.

Status: Completed.

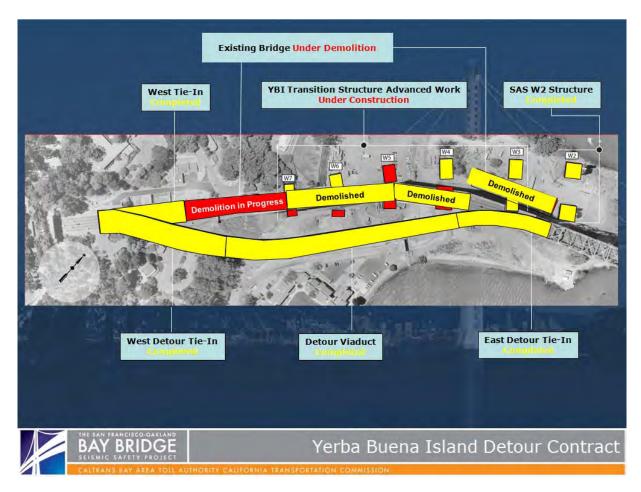
# Yerba Buena Island Detour (YBID) Traffic Shift and Existing Approach Bridge Demolition

To make way for the new bridge, the existing approach structure from the YBI tunnel to the cantilever spans of the East Span need to be demolished. After traffic was realigned onto the detour viaduct, demolition commenced on the removal of the approach structure. When completely removed, the Yerba Buena Island #1 contract will start construction on new approach structures from the tunnel to the SAS.

**Status:** Demolition of the existing approach structure has been ongoing since September 2009 and will be completed before the end of the year.



**Demolition of Existing Bridge** 



Overview of Yerba Buena Island Detour Contract Scope of Work and Current Status

# San Francisco-Oakland Bay Bridge East Span Replacement Project Yerba Buena Island Transition Structures (YBITS)

The new Yerba Buena Island Transition Structures (YBITS) will connect the new SAS bridge span to the existing Yerba Buena Island Tunnel, transitioning the new side-by-side roadway decks to the upper and lower decks of the tunnel. The new structures will be cast-in-place reinforced concrete structures that will look very similar to the already constructed Skyway structures. While some YBITS foundations and columns have been advanced by the YBID contract, the remaining work will be completed under three separate YBITS contracts.

# B YBITS #1 Contract

Contractor: MCM Construction, Inc Current Capital Outlay Budget: \$144.0 M

Status: In Construction



Yerba Buena Island Transition Structure and East Tie In Advanced Columns

The YBITS #1 contract will construct the mainline roadway structures from the SAS bridge to the YBI tunnel. On December 15, 2009, Caltrans opened three bids for the Yerba Buena Island Transitions Structures (YBITS) #1 contract. On February 4, 2010, Caltrans awarded the YBITS #1Contract to MCM Construction, Inc. Construction work will start when the YBID contractor has completed demolition of the old viaduct structure. MCM Construction, Inc. is also the firm constructing the Oakland Touchdown #1 contract.

**Status:** MCM Construction started work on submittals on March 10, 2010. Construction is scheduled to start on September 1, 2010.



Rendering of Overview of Future Yerba Buena Island Transition Structures (top), in progress with Detour Viaduct (bottom) Completed

### **YBITS #2 Contract**

Contractor: TBD

Current Capital Outlay Budget: \$59.0 M

Status: In Design

The YBITS #2 contract will demolish the detour viaduct after all traffic is shifted to the new bridge and will construct a new eastbound on-ramp to the bridge in its place. The new ramp will also provide the final link for bicycle/pedestrian access off the SAS bridge onto Yerba Buena Island.

### **YBITS Landscaping Contract**

Contractor: TBD

Current Capital Outlay Forecast: \$3.3 M

Status: In Design

Upon completion of the YBITS work, a follow-on landscaping contract will be executed to re-plant and landscape the area.

### Yerba Buena Island Transition Structures Advanced Work

Due to the re-advertisement of the SAS superstructure contract in 2005, it became necessary to temporarily suspend the detour contract and make design changes to the viaduct. To make more effective use of the extended contract duration and to reduce overall project schedule and construction risks, the TBPOC approved the advancement of foundation and column work from the Yerba Buena Island Transition Structures contract.

**Status**: Advanced foundations and columns for piers W3, W5 and W7 are under construction. Foundation piling and footing for pier W5 has been completed and the first column lifts were placed on May 1, 2010. See page 17 for a diagram of pier locations.



**Yerba Buena Island Transition Structures** 

### San Francisco-Oakland Bay Bridge East Span Replacement Project Self-Anchored Suspension (SAS) Bridge

If one single element bestows world class status on the new Bay Bridge East Span, it is the Self-Anchored Suspension (SAS) bridge. This engineering marvel will be the world's largest SAS span at 2,047 feet in length, as well as the first bridge of its kind built with a single tower.

The SAS was separated into three separate contracts—construction of the land-based foundations and columns at Pier W2; construction of the marine-based foundations and columns at Piers T1 and E2; and construction of the SAS steel superstructure, including the tower, roadway, and cabling. Construction of the foundations at Pier W2 and at Piers T1 and E2 was completed in 2004 and 2007, respectively.

### SAS Land Foundation Contract

Contractor: West Bay Builders, Inc. Approved Capital Outlay Budget: \$26.4 M Status: Completed October 2004

The twin W2 columns on Yerba Buena Island provide essential support for the western end of the SAS bridge, where the single main cable for the suspension span will extend down from the tower and wrap around and under the western end of the roadway deck. Each of these huge columns required massive amounts of concrete and steel and are anchored 80 feet into the island's solid bedrock.



**SAS T1 Trestle Overview** 



SAS Overview of W2 Cap Beam

### **C** SAS Marine Foundations Contract

Contractor: Kiewit/FCI/Manson, Joint Venture Approved Capital Outlay Budget: \$280.9 M Status: Completed January 2008

Construction of the piers at E2 and T1 required significant on-water resources to drive the foundation support piles down, not only to bedrock, but also through the bay water and mud (see rendering on facing page).

The T1 foundation piles extend 196 feet below the waterline and are anchored into bedrock with heavily reinforced concrete rock sockets that are drilled into the rock. Driven nearly 340 feet deep, the steel and concrete E2 foundation piles were driven 100 feet deeper than the deepest timber piles of the existing east span in order to get through the bay mud and reach solid bedrock.

### D SAS Superstructure Contract

Contractor: American Bridge/Fluor Enterprises, Joint Venture

Approved Capital Outlay Budget: \$1.75 B Status: 51% Complete as of April 2010

The SAS bridge is not just another suspension bridge. Rising 525 feet above mean sea level and embedded in rock, the single-tower SAS span is designed to withstand a massive earthquake. Traditional main cable suspension bridges have twin cables with smaller suspender cables connected to them. These cables hold up the roadbed and are anchored to the east end of the box girders. While there will appear to be two main cables on the SAS, there will actually only be one. This single cable will be anchored within the eastern end of the roadway, carried over the tower and then wrapped around the two side-by-side decks at the western end.

The single steel tower will be made up of four separate legs connected by shear link beams which function much like a fuse in an electrical circuit. These beams will absorb most of the impact from an earthquake, preventing damage to the tower legs.

The next several pages highlight the construction sequence of the SAS and are followed by detailed updates on specific construction activities.



Architectural Rendering of New Self-Anchored Suspension Span and Skyway

### Self-Anchored Suspension (SAS) Construction Sequence

# STEP 1 - CONSTRUCT TEMPORARY SUPPORT STRUCTURES

Temporary support structures will need to be erected from the Skyway to Yerba Buena Island to support the new SAS bridge during construction.

**Status:** Foundations and the temporary support structures are substantially complete.



### STEP 2 - INSTALL ROADWAYS

The roadway boxes are being lifted into place by using the shear-leg crane barge. The boxes are being bolted and welded together atop the temporary support trusses to form two continuous parallel steel roadway boxes.

**Status:** The second shipment of roadway boxes arrived on April 18, 2010. Six eastbound and four westbound roadway boxes have been lifted into place and are being bolted and welded together. To date, five crossbeams have been erected between the roadway boxes. The third shipment is anticipated to arrive in July 2010.



Each of the four legs of the tower will be erected in five separate lifts. The tower lifts will be installed using a temporary erection tower and lifting jacks.

**Status:** The first shipment of tower sections is anticipated on June 18, 2010 (see page 24 for more information).





# STEP 4 - MAIN CABLE AND SUSPENDER INSTALLATION

The main cable will be pulled from the east end of the SAS bridge, over the tower, and wrapped around pier W2 and again back over the tower and to the west end of the SAS bridge deck. Suspender cables will be added to lift the roadway decks off the temporary support structure.

**Status:** Cable installation is pending the erection of the tower and roadway spans. The first half of the cables arrived in January 2010, and the second half is being fabricated and anticipated to ship in the summer of 2010.



The new bridge will first open in the westbound direction pending completion of the Yerba Buena Island Transition Structures.

**Status:** Westbound opening is forecast for summer 2013. The westbound approach from Oakland to the Skyway was completed by the Oakland Touchdown #1 contract in 2009.





### STEP 6 - EASTBOUND OPENING

Opening of the bridge in the eastbound direction is pending completion of Oakland Touchdown #2. Westbound traffic will need to be routed off the existing bridge before the eastbound approach structure can be completed.

**Status:** The eastbound opening is forecast for December 2013. The eastbound temporary detour road will be completed in June 2010 by the OTD#1 contractor.



### Self-Anchored Suspension (SAS) Superstructure Fabrication Activities

### Roadway and Tower Segments

Like giant three-dimensional jigsaw puzzles, the roadway and tower segments of the SAS bridge are hollow steel shells that are internally strengthened and stiffened by a highly engineered network of welded steel ribs and diaphragms. The use of steel in this manner allows for a flexible yet relatively light and strong structure able to withstand the massive loads placed on the bridge during seismic events.

On the critical path to completing the bridge are the fabrication of the last four roadway boxes (segments 13 and 14 east and west). Start of fabrication of these boxes has fallen behind schedule due to delays in the fabrication drawing preparation process. These delays will likely preclude the westbound opening of the bridge in 2012, but we continue to push for the opening of the bridge to traffic in both directions in 2013.

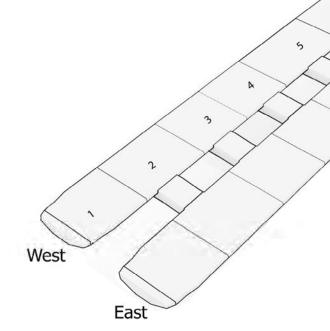
All components undergo a rigorous quality review by ZPMC, ABF, and Caltrans to ensure that only bridge components that have been built in accordance to contract specifications will be shipped.

Roadway Box Fabrication Status: As shown in the diagram to the right, roadway boxes 1 through 6 east and west have been completed and shipped to the Bay Area. Boxes 7 through 9 east and west are in trial assembly or painting. The remaining boxes are still being pieced together into larger segments.

**Tower Fabrication Status:** Each of the four legs of the towers is composed of five separate lifts. The lifts get progressively shorter and lighter as they progress up the tower. Currently, the first four lifts of tower boxes are in various stages of fabrications with lifts 1 and 2 most furthest along. Tower lifts 1 and 2 have been trial fit together to ensure alignment.

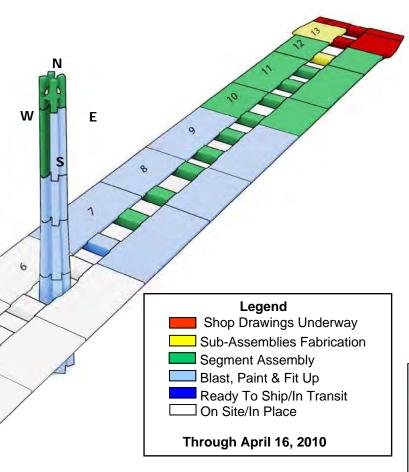


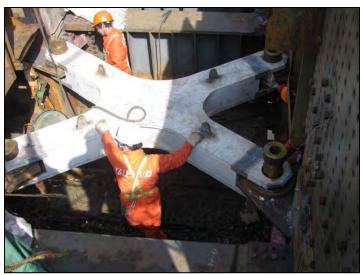
SAS Trial Assembly Yard Roadway Boxes 7 and 8



### **Fabrication Progress Diagram**

Through April 2010





**SAS Crossbeam Installation** 





**SAS Welding Roadway Box** 

SAS Lowering of Tower Lift #2

### Self-Anchored Suspension (SAS) Superstructure Fabrication Activities (cont.)

### Cables and Suspenders

One continuous main cable will be used to support the roadway deck of the SAS bridge. Anchored into the eastern end of the bridge, the main cable will be anchored with the roadway box at the east end of the SAS near Pier E1, go over the main tower at T1, loop around the western end of the roadway decks at Pier W2, and then go back over the main tower to the western end of the box girder. The main cable will be made up of bundles of individual wire strands. Supporting the roadway decks to the main cable will be a number of smaller suspender cables. The main cable will be fabricated in China and the suspender cables in Missouri, USA.

**Status:** The first half of the cable shipment arrived on site in January 2010 and the second half is expected in the summer of 2010.



**SAS Masking of Cable Bands Prior to Paint** 



**SAS East Saddle in Fabrication** 

# Saddles, Bearings, Hinges, and Other Bridge Components

The mounts on which the main cable and suspender ropes will sit are made from solid steel castings. Castings for the main cable saddles are being made by Japan Steel Works, while the cable bands and brackets are being made by Goodwin Steel in the United Kingdom.

The bridge bearings and hinges that support, connect, and transfer loads from the self-anchored suspension (SAS) span to the adjoining sections of the new east span are being fabricated in a number of locations. Work on the bearings is being performed in Pennsylvania, USA and Hochang, South Korea, while hinge pipe beams are being fabricated in Oregon, USA.

**Status:** The cable saddles and hinges at the W2 cap beam and YBITS are under fabrication.

### Self-Anchored Suspension (SAS) Superstructure Field Activities



Shear-Leg Barge Crane Lifting Roadway Box Lift 1 East

### **Temporary Support Structures**

To erect the roadway decks and tower of the bridge, temporary support structures will first be put in place. Almost a bridge in itself, the temporary support structures will stretch from the end of the completed Skyway back to Yerba Buena Island. For the tower, a strand jack system is being built into the tower's temporary frame to elevate the upper sections of the tower into place. These temporary supports are being fabricated in the Bay Area, as well as in Oregon and in China at ZPMC.

**Status:** Temporary support structures are now 85% complete with the exception of a portion of the westbound structure which is awaiting the delivery of the lift 1 tower.

### Cap Beams

Construction of the massive steel-reinforced concrete cap beams that link the columns at piers W2 and E2 was left to the SAS superstructure contractor and represents the only concrete portions of work on that contract. The east and west ends of the SAS roadway will rest on the cap beams and the main cable will wrap around Pier W2, while anchoring into the east end of the SAS deck sections near E2.

Status: Completed March 2009

### Shear-Leg Barge Crane

The massive shear-leg barge crane that is helping to build the SAS superstructure arrived in the San Francisco Bay on March 12, 2009 after a trans-Pacific voyage.

The crane and barge are separate units operating as a single entity named the "Left Coast Lifter." The 400-by-100-foot barge is a U.S. flagged vessel that was custom built in Portland, Oregon by U.S. Barge, LLC and outfitted with the crane by Shanghai Zhenhua Heavy Industry Co. Ltd. (ZPMC) at a facility near Shanghai, China. The crane's boom weighs 992 tons and is 328 feet long. The crane can lift up to 1,873 tons, including the deck and tower sections for the SAS.

**Status:** The shear-leg barge crane arrived at the jobsite March 2009. The crane has off-loaded and placed all temporary support structures and SAS roadway boxes and crossbeams.



SAS W2 Cap Beam

### Self-Anchored Suspension (SAS) Superstructure Installation Activities

Upon arrival in Oakland, the steel roadway and tower sections are off-loaded directly from the transport ship onto barges to await installation atop the temporary support structures. The steel roadway sections will be installed from west to east. Due to the shallow waters near Yerba Buena Island, the eastbound lanes on the south side of the new bridge will be installed first, then to be followed by the westbound lanes. In total, there are 28 roadway sections (14 in each direction) that range from 560 to 1660 tons and from 80 to 230 feet long.

The tower comprises 4 legs, each made up of four tower box lifts that make up the majority of the height of the tower. To the tower boxes are added the tower grillage, and finally the tower head.

**Status:** The first four east and four west roadway boxes arrived in the Bay Area in late January 2010. All have been lifted into place and are now being welded together to form a continuous roadway. Four additional boxes arrived on April 18, 2010, of which two have been placed on the eastbound temporary support structure and two have been off-loaded onto barges to await installation atop the temporary support structure (see additional diagram on page 24 and 25).





SAS Roadway Box Girder Closure Pour



SAS Eastbound Roadway Box Girders and Existing East Span

# San Francisco-Oakland Bay Bridge East Span Replacement Project Skyway

The Skyway, which comprises much of the new East Span, will drastically change the appearance of the Bay Bridge. Replacing the gray steel that currently cages drivers, a graceful, elevated roadway supported by piers will provide sweeping views of the bay.

### **E Skyway Contract**

Contractor: Kiewit/FCI/Manson, Joint Venture Approved Capital Outlay Budget: \$1.25 B Status: Completed April 2008

Status: Completed April 2008

Extending for more than a mile across Oakland mudflats, the Skyway is the longest section of the East Span. It sits between the new Self-Anchored Suspension (SAS) span and the Oakland Touchdown. In addition to incorporating the latest seismic-safety technology, the side-by-side roadway decks of the Skyway feature shoulders and lane widths built to modern standards.

The Skyway's decks are composed of 452 pre-cast concrete segments (standing three stories high), containing approximately 200 million pounds of structural steel, 120 million pounds of reinforcing steel, 200 thousand linear feet of piling and about 450 thousand cubic yards of concrete. These are the largest segments of their kind ever cast and were lifted into place by custom-made winches.

The Skyway marine foundation consists of 160 hollow steel pipe piles measuring eight feet in diameter and dispersed among 14 sets of piers. The 365-ton piles were driven more than 300 feet into the deep bay mud. The new East Span piles were battered or driven in at an angle, rather than vertically, to obtain maximum strength and resistance.

Designed specifically to move during a major earthquake, the Skyway features several state-of-the-art seismic safety innovations, including 60-foot-long hinge pipe beams. These beams will allow deck segments on the Skyway to move, enabling the deck to withstand greater motion and to absorb more earthquake energy.



Overview of the Skyway and the Temporary Support Structures with the Shear-Leg Barge Crane Lifting Roadway Boxes or Orthotropic Box Girders (OBG) into Place

# San Francisco-Oakland Bay Bridge East Span Replacement Project Oakland Touchdown

When completed, the Oakland Touchdown (OTD) structures will connect Interstate 80 in Oakland to the new side-by-side decks of the new East Span. For westbound drivers, the OTD will be their introduction to the graceful new East Span. For eastbound drivers from San Francisco, this section of the bridge will carry them from the Skyway to the East Bay, offering unobstructed views of the Oakland hills.

The OTD will be constructed through two contracts. The first contract will build the new westbound lanes, as well as part of the eastbound lanes. The second contract to complete the eastbound lanes cannot fully begin until westbound traffic is shifted onto the new bridge. This enables a portion of the upper deck of the existing bridge to be demolished allowing for a smooth transition for the new eastbound lanes in Oakland.

### F Oakland Touchdown #1 Contract

Contractor: MCM Construction, Inc. Current Capital Outlay Budget: \$212.0 M Status: 97% Complete as of April 2010

The OTD #1 contract constructs the entire 1,000-footlong westbound approach from the toll plaza to the Skyway. When completed, the westbound approach structure will provide direct access to the westbound Skyway. In the eastbound direction, the contract will construct a portion of the eastbound structure and all of the eastbound foundations that are not in conflict with the existing bridge.

**Status:** On the OTD #1 westbound structure, the contractor has completed all work and is forecasting to complete all eastbound structure work in June 2010. The contractor, MCM, has removed the trestles.

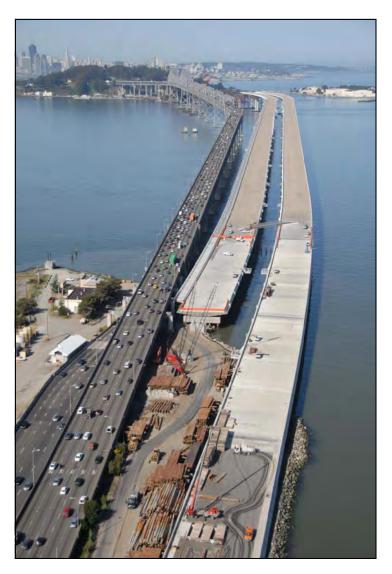
### **G** Oakland Touchdown #2 Contract

Contractor: TBD

Current Capital Outlay Budget: \$62.0 M

Status: In design

The OTD #2 contract will complete the eastbound approach structure from the end of the Skyway to Oakland. This work is critical to the eastbound opening of the new bridge, but cannot be completed until westbound traffic has been shifted off the existing upper deck to the new SAS Bridge.



Overview of Oakland Touchdown #1 Project Status

# San Francisco-Oakland Bay Bridge East Span Replacement Project Other Contracts

A number of contracts needed to relocate utilities, clear areas of archeological artifacts, and prepare areas for future work have already been completed. The last major contract will be the eventual demolition and removal of the existing bridge, which by that time will have served the Bay Area for nearly 80 years. Following is a status of some the other East Span contracts.



**Archeological Investigations** 

### **East Span Interim Seismic Retrofit**

Contractors: 1) California Engineering Contractors 2) Balfour Beatty

Approved Capital Outlay Budget: \$30.8 M

Status: Completed October 2000

After the 1989 Loma Prieta Earthquake, and before the final retrofit strategy was determined for the East Span, Caltrans completed an interim retrofit of the existing bridge to prevent a catastrophic collapse of the bridge should a similar earthquake occur before the East Span was completely replaced. The interim retrofit was performed under two separate contracts that lengthened pier seats, added some structural members, and strengthened areas of the bridge so they would be more resilient during an earthquake.

### **Stormwater Treatment Measures**

Contractor: Diablo Construction, Inc. Approved Capital Outlay Budget: \$18.3 M Status: Completed December 2008

The Stormwater Treatment Measures contract implemented a number of best practices for the management and treatment of stormwater runoff. Focusing on the areas around and approaching the toll plaza, the contract added new drainage and built new bio-retention swales and other related constructs.



**Existing East Span of Bay Bridge** 



**Stormwater Retention Basin** 

### Yerba Buena Island Substation

Contractor: West Bay Builders

Approved Capital Outlay Budget: \$11.6 M

Status: Completed May 2005

This contract relocated an electrical substation just east of the Yerba Buena Island Tunnel in preparation for the new East Span.

### **Pile Installation Demonstration**

Contractor: Manson and Dutra, Joint Venture Approved Capital Outlay Budget: \$9.2 M Status: Completed December 2000

While large-diameter battered piles are common in offshore drilling, the new East Span is one of the first bridges to use large-diameter battered piles in its foundations. To minimize project risks and build industry knowledge, a pile installation demonstration project was initiated to prove the efficacy of the proposed technology and methodology. The demonstration was highly successful and helped result in zero contract change orders or claims for pile driving on the project.

# **H** Existing Bridge Demolition

Contractor: TBD

Approved Capital Outlay Budget: \$239.1 M

Status: In Design

Design work on the contract will start in earnest as the opening of the new bridge to traffic approaches.



# I Electrical Cable Relocation

Contractor: Manson Construction Approved Capital Outlay Budget: \$9.6 M Status: Completed January 2008

A submerged cable from Oakland that is close to where the new bridge will touch down supplies electrical power to Treasure Island. To avoid any possible damage to the cable during construction, two new replacement cables were run from Oakland to Treasure Island. The extra cable was funded by the Treasure Island Development Authority and its future development plans.

### **Antioch Bridge Seismic Retrofit Project**

Contractor: California Engineering Contractors, Inc. Approved Capital Outlay Budget: \$156.0 M Status: Awarded

Serving the Delta region of the Bay Area, the Antioch Bridge takes State Route 160 traffic over the San Joaquin River, linking eastern Contra Costa County with Sacramento County. The current 1.8 mile-long steel plate girder bridge was opened in 1978 with one lane in each direction. The current retrofit strategy for the bridge includes relatively minor modifications to the approach structure on Sherman Island, the addition of isolation bearings and strengthening of the columns and hinge retrofits.

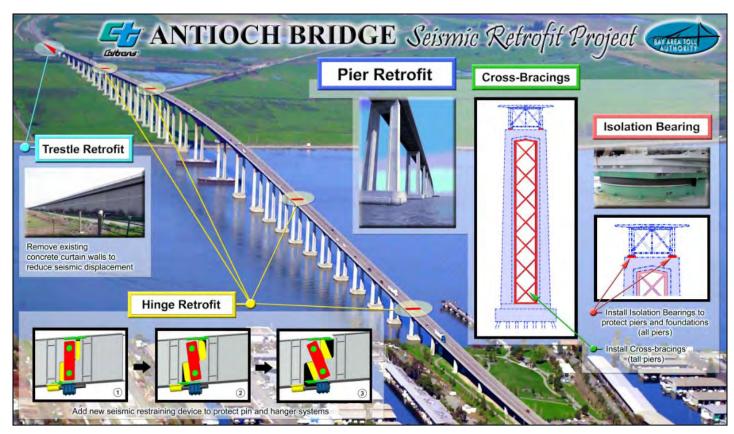
**Status:** Bids for the retrofit contract were opened on March 10, 2010. The contract was awarded to California Engineering Contractors, Inc. on April 22, 2010. The awarded contract was significantly less than the engineer's estimate for the work and has resulted in a significant cost forecast reduction. The TBPOC is recommending that the



**Antioch Bridge** 

budget for the project be reduced to account for the low bid. The original budget for the project was \$267 million.

With the low bid, the TBPOC is forecasting a need of only \$130 million. The retrofit is forecast to be completed by May 2012.



Seismic Retrofit Strategy Summary for Antioch Bridge

### **Dumbarton Bridge Seismic Retrofit Project**

Contractor: TBD.

Approved Capital Outlay Budget: \$270.0 M

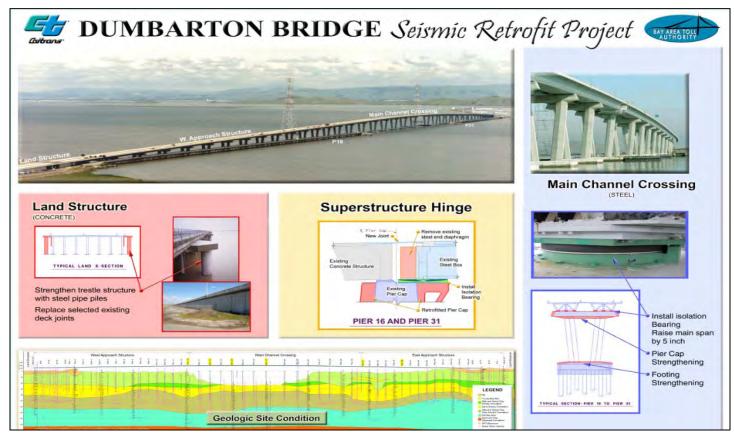
Status: Advertised

The current Dumbarton Bridge was opened to traffic in 1982 linking the cities of Newark in Alameda County and East Palo Alto in San Mateo County. The 1.6 mile long bridge has six lanes (three in each direction) and an eight-foot bicycle/pedestrian pathway. The bridge is a combination of reinforced concrete and steel girders that support a reinforced lightweight concrete roadway on reinforced concrete columns. The current retrofit strategy for the bridge includes superstructure and deck modifications and installation of isolation bearings.

**Status:** The retrofit contract was advertised in March 2010 with bid opening scheduled for late May.



**Dumbarton Bridge** 



Seismic Retrofit Strategy Summary for Dumbarton Bridge

# TOLL BRIDGE SEISMIC RETROFIT PROGRAM Other Completed Projects

In the 1990s, the State Legislature identified seven of the nine state-owned toll bridges for seismic retrofit. In addition to the San Francisco-Oakland Bay Bridge, these included the Benicia-Martinez, Carquinez, Richmond-San Rafael and San Mateo-Hayward bridges in the Bay Area, and the Vincent Thomas and Coronado bridges in Southern California. Other than the East Span of the Bay Bridge, and the recent inclusion of the Dumbarton and Antioch bridges, the retrofits of all of the bridges have been completed.

#### San Mateo-Hayward Bridge Seismic Retrofit Project Project Status: Completed 2000

The San Mateo-Hayward Bridge seismic retrofit project focused on strengthening the high-rise portion of the span. The foundations of the bridge were significantly upgraded with additional piles.

#### 1958 Carquinez Bridge Seismic Retrofit Project Project Status: Completed 2002

The eastbound 1958 Carquinez Bridge was retrofitted in 2002 with additional reinforcement of the cantilever thru-truss structure.

#### 1962 Benicia-Martinez Bridge Seismic Retrofit Project Project Status: Completed 2003

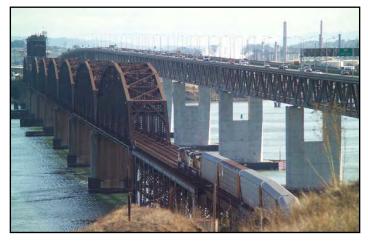
The southbound 1962 Benicia-Martinez Bridge was retrofitted to "Lifeline" status with the strengthening of the foundations and columns and the addition of seismic bearings that allow the bridge to move during a major seismic event. The Lifeline status means the bridge is designed to sustain minor to moderate damage after an event and to reopen quickly to emergency response traffic.



High-Rise Section of San Mateo-Hayward Bridge



1958 Carquinez Bridge (foreground) with the 1927 Span (middle) under Demolition and the New Alfred Zampa Memorial Bridge (background)



1962 Benicia-Martinez Bridge (right)

#### Richmond-San Rafael Bridge Seismic Retrofit Project Project Status: Completed 2005

The Richmond-San Rafael Bridge was retrofitted to a "No Collapse" classification to avoid catastrophic failure during a major seismic event. The foundations, columns, and truss of the bridge were strengthened, and the entire low-rise approach viaduct from Marin County was replaced.



Richmond-San Rafael Bridge

#### Los Angeles-Vincent Thomas Bridge Seismic Retrofit Project Project Status: Completed 2000

The Vincent Thomas Bridge is a 1,500-foot long suspension bridge crossing the Los Angeles Harbor in Los Angeles that links San Pedro with Terminal Island. The bridge was one of two state-owned toll bridges in Southern California (the other being the San Diego-Coronado Bridge). Opened in 1963, the bridge was seismically retrofitted as part of the TBSRP in 2000.



Los Angeles-Vincent Thomas Bridge

#### San Diego-Coronado Bridge Seismic Retrofit Project Project Status: Completed 2002

The San Diego-Coronado Bridge crosses over San Diego Bay and links the cities of San Diego and Coronado. Opened in 1969, the 2.1 mile long bridge was seismically retrofitted as part of the Toll Bridge Seismic Retrofit Project in 2002.



San Diego-Coronado Bridge



# REGIONAL MEASURE 1 TOLL BRIDGE PROGRAM

#### **REGIONAL MEASURE 1 PROGRAM**

### Interstate 880/State Route 92 Interchange Reconstruction Project

The Interstate 880/State Route 92 Interchange Reconstruction Project is the final project under the Regional Measure 1 Toll Bridge Program. Project completion fulfills a promise made to Bay Area voters in 1988 to deliver a slate of projects that would help expand bridge capacity, reduce congestion and improve safety on the bridges.

This corridor is consistently one of the Bay Area's most congested during the evening commute. This is due in part to the lane merging and weaving that is required by the existing cloverleaf interchange. The new interchange will feature direct freeway-to-freeway connector ramps that will increase traffic capacity and improve overall safety and traffic operations in the area. With the new direct-connector ramps, drivers coming off the San Mateo-Hayward Bridge can access Interstate 880 without having to compete with traffic headed onto east Route 92 from south Interstate 880 (see additional progress photos on pages 74 and 75).



Future Interstate 880/State Route 92 Interchange (as simulated) ,Looking West toward San Mateo.

# Interstate 880/State Route 92 Interchange Reconstruction Contract

Contractor: Flatiron/Granite

Approved Capital Outlay Budget: \$161.0 M Status: 69% Complete As Of April 2010



**Overview of Progress to Date** 

#### Stage 1 – Construct East Route 92 to North Interstate 880 Connector

The new east Route 92 to north Interstate 880 connector (ENCONN) is the most critical flyover structure for relieving congestion in the corridor. The ENCONN will be first used as a detour to allow for future stages of work, while keeping traffic flowing.

**Status:** ENCONN was completed and opened to detour traffic on May 16, 2009.

#### Stage 2 – Replace South Side of Route 92 Separation Structure

By detouring eastbound Route 92 traffic onto ENCONN, the existing separation structure that carries SR92 over I-880 can be replaced. The existing structure will be cut lengthwise, and then demolished and replaced separately. In this stage, the south side of the structure will be replaced, while west Route 92 and south-Interstate-880-to-east-Route-92 traffic will stay on the remaining structure.

**Status:** Work on the south side of the separation structure is complete. Detour traffic switches onto the new separation structure will be completed in late April 2010.

#### Stage 3 – Replace North Side of Route 92 Separation Structure

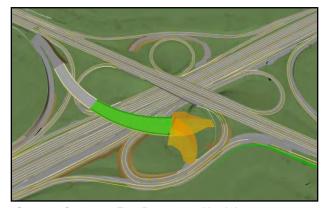
Upon completion of Stage 2, the existing north side of the separation structure will be demolished and replaced. Its traffic will then be shifted onto the newly reconstructed south side.

**Status:** The demolition of the existing westbound separation structure (north side) will begin April 26, 2010.

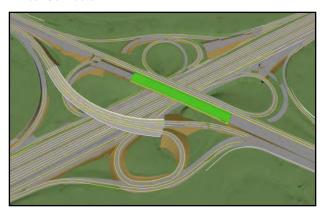
#### Stage 4 – Final Realignment and Other Work

Upon completion of the Route 92 separation structure, east Route 92 traffic can be shifted onto its permanent alignment from the new ENCONN and directly under the new separation structure. Along with the ENCONN and Route 92 separation structures, several soundwalls, a pedestrian overcrossing on I-880 at Eldridge Avenue and other ramps and structures will also be reconstructed as part of this project. Work will begin at the North to West Connector Bridge (NWCONN). As part of this construction sequence the MSE Wall D1 / D2 is key to completion of this work. This traffic movement will allow for reducing congestion moving on I-880 North to SR-92 Westbound. The final structure to be completed moves traffic from eastbound SR92 to southbound I-880. This structure is the West to South Connector Bridge (WSCONN).

Status: Work continues on retaining wall A in the northwest, quadrant, (Stage 2) as well as on the Eldridge Avenue pedestrian overcrossing. The POC is currently 63% complete. The new pump station construction is ongoing and scheduled to be completed in August 2010. The Eastbound SR-92 separation structure commenced construction in April 2010. The demolition of the existing structure is complete and the start of construction for the new separation structure has started. The Calaroga Bridge temporary bridge was completed January 15, 2010. The Calaroga left bridge is approximately 30 percent complete and is forecast to complete in August 2010. Upon completion of the left bridge the right bridge will be constructed and is forecast to be complete the first quarter of 2011. NWCONN is currently forecast to complete in the second quarter of 2011.



Stage 1 - Construct East Route 92 to North Interstate 880 Direct Connector



Stage 2 - Demolish and Replace South Side of Route 92 Separation Structure



Stage 3 - Demolish and Replace North Side of Route 92 Separation Structure



Stage 4 - Final Realignment and Other Work

# REGIONAL MEASURE 1 PROGRAM Other Completed Projects

# San Mateo-Hayward Bridge-Widening Project Project Status: Completed 2003

This project expanded the low-rise concrete trestle section of the San Mateo-Hayward Bridge to allow for three lanes in each direction to match the existing configuration of the high-rise steel section of the bridge.



Widening of the San Mateo-Hayward Bridge Trestle on Left

#### Richmond-San Rafael Bridge Rehabilitation Projects Project Status: Completed 2006

Two major rehabilitation projects for the Richmond-San Rafael Bridge were funded and completed:

(1) replacement of the western concrete approach trestle and ship-collision protection fender system; and(2) rehabilitation of deck joints and resurfacing of the bridge deck.

In 2005, along with the seismic retrofit of the bridge, the trestle and fender replacement work was completed as part of the same project. Under a separate contract in 2006, the bridge was resurfaced with a polyester concrete overlay along with the repair of numerous deck joints.

# Richmond Parkway Construction Project Project Status: Completed 2001

The final connections to the Richmond Parkway from Interstate 580 near the Richmond-San Rafael Bridge were completed in May 2001.



New Richmond-San Rafael Bridge West Approach Trestle under Construction

# New Alfred Zampa Memorial (Carquinez) Bridge Project Project Status: Completed 2003

The new western span of the Carquinez Bridge, which replaced the original 1927 span, is a twintowered suspension bridge with three mixed-flow lanes, a new carpool lane shoulders and a bicycle and pedestrian pathway.



New Alfred Zampa Memorial (Carquinez) Bridge Soon after Opening to Traffic, with Crockett Interchange Still under Construction

## Benicia-Martinez Bridge Project Project Status: Completed 2009

A two-year project to rehabilitate and reconfigure the original Benicia-Martinez Bridge began shortly after the opening of the new Congressman George Miller Bridge. The existing 1.2-mile roadway surface on the steel deck truss bridge was modified to carry four lanes of southbound traffic (one more than before)—with shoulders on both sides—plus a bicycle/pedestrian path on the west side of the span that connects to Park Road in Benicia and to Marina Vista Boulevard in Martinez. Reconstruction of the east side of the bridge and approaches was completed in August 2008 and reconstruction of the west side of the bridge an approaches and construction of the bicycle/pedestrian pathway was completed in August 2009.

# Bayfront Expressway (State Route 84) Widening Project Project Status: Completed 2004

This project expanded and improved the roadway from the Dumbarton Bridge touchdown to the US 101/Marsh Road interchange by adding additional lanes and turn pockets and improving bicycle and pedestrian access in the area.



Benicia-Martinez Bridge Pedestrian/Bicycle Pathway Opened to The Public in August 2009

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#### Appendix A-1: TBSRP AB 144/SB 66 Baseline Budget, Forecasts and

Contract a	AB 144 / SB 66 Budget (07/2005) c	Approved Changes d	Current Approved Budget (03/2010) e = c + d	Cost To Date (03/2010) f	Cost Forecast (03/2010)	At- Completion Variance h = g - e
SFOBB East Span Replacement Project						
Capital Outlay Support	959.3	-	959.3	829.2	1,262.2	302.9
Capital Outlay Construction	4,492.2	203.8	4,696.0	3,285.2	4,929.3	233.3
Other Budgeted Capital	35.1	(3.3)	31.8	0.7	7.7	(24.1)
Total	5,486.6	200.5	5,687.1	4,115.1	6,199.2	512.1
SFOBB West Approach Replacement	.,		-,	, ,	-,	
Capital Outlay Support	120.0	(3.0)	117.0	117.2	118.0	1.0
Capital Outlay Construction	309.0	41.7	350.7	328.0	338.1	(12.6)
Total	429.0	38.7	467.7	445.2	456.1	(11.6)
SFOBB West Span Retrofit						-
Capital Outlay Support	75.0	-	75.0	74.8	75.0	-
Capital Outlay Construction	232.9	-	232.9	227.3	227.5	(5.4)
Total	307.9	-	307.9	302.1	302.5	(5.4)
Richmond-San Rafael Bridge Retrofit						, ,
Capital Outlay Support	134.0	(7.0)	127.0	126.7	127.0	-
Capital Outlay Construction	780.0	(90.5)	689.5	667.5	689.5	-
Total	914.0	(97.5)	816.5	794.2	816.5	-
Benicia-Martinez Bridge Retrofit						-
Capital Outlay Support	38.1	-	38.1	38.1	38.1	-
Capital Outlay Construction	139.7	-	139.7	139.7	139.7	-
Total	177.8	-	177.8	177.8	177.8	-
Carquinez Bridge Retrofit						
Capital Outlay Support	28.7	-	28.7	28.8	28.7	-
Capital Outlay Construction	85.5	-	85.5	85.4	85.5	-
Total	114.2	-	114.2	114.2	114.2	-
San Mateo-Hayward Bridge Retrofit						-
Capital Outlay Support	28.1	-	28.1	28.1	28.1	-
Capital Outlay Construction	135.4	-	135.4	135.3	135.4	-
Total	163.5		163.5	163.4	163.5	-
Vincent Thomas Bridge Retrofit (Los Angeles)						
Capital Outlay Support	16.4	-	16.4	16.4	16.4	-
Capital Outlay Construction	42.1	-	42.1	42.0	42.1	-
Total	58.5	-	58.5	58.4	58.5	-
San Diego-Coronado Bridge Retrofit						
Capital Outlay Support	33.5	-	33.5	33.2	33.5	-
Capital Outlay Construction	70.0	-	70.0	69.4	70.0	-
Total	103.5	-	103.5	102.6	103.5	-

# Appendix A-1: TBSRP AB 144/SB 66 Baseline Budget, Forecasts and Expenditures through April 30, 2010 (\$ Millions) (cont.)

			Current			
	AB 144 / SB		Approved		Cost	At-
	66 Budget	Approved	Budget	Cost To Date	Forecast	Completion
Contract	(07/2005)	Changes	(03/2010)	(03/2010)	(03/2010)	Variance
a	С	d	e = c + d	f	g	h = g - e
Antioch Bridge						
Capital Outlay Support	-	39.0	39.0	9.1	31.0	(8.0)
Capital Outlay Support by BATA				6.2		(5.5)
Capital Outlay Construction	-	156.0	156.0	-	70.0	(86.0)
Total	-	195.0	195.0	15.3	101.0	(94.0)
Dumbarton Bridge						
Capital Outlay Support	-	95.0	95.0	15.2	103.1	8.1
Capital Outlay Support by BATA				6.0		
Capital Outlay Construction	-	270.0	270.0	0.3	171.9	(98.1)
Total	-	365.0	365.0	21.5	275.0	(90.0)
Subtotal Capital Outlay Support	1,433.1	124.0	1,557.1	1,329.0	1,861.1	304.0
Subtotal Capital Outlay	6,286.8	581.0	6,867.8	4,980.1	6,899.0	31.2
Subtotal Other Budgeted Capital	35.1	(3.3)	31.8	0.7	7.7	(24.1)
Miscellaneous Program Costs	30.0	-	30.0	24.7	30.0	-
Subtotal Toll Bridge Seismic Retrofit Program	7,785.0	701.7	8,486.7	6,334.5	8,797.8	311.1
Programmatic Risk	-	-	-	-	78.0	78.0
Program Contingency	900.0	48.3	948.3	-	422.2	(526.1)
Total Toll Bridge Seismic Retrofit Program	8,685.0	750.0	9,435.0	6,334.5	9,298.0	(137.0)
Total Foll Bridge Joisinie Religibilit Flogram	0,003.0	750.0	7,700.0	0,004.0	7,270.0	(137.0)

# Appendix A-2: TBSRP AB 144/SB 66 Baseline Budget, Forecasts and Expenditures through April 30, 2010 (\$ Millions)

Bridge	AB 144 Baseline Budget	TBPOC Current Approved Budget	Encumbrances as of Mar 2010 See Note (1)	not yet Spent or Encumbered as of Mar 2010	Total Forecast as of Mar 2010
a	b	С	d	е	f = d + e
Other Completed Projects					
Capital Outlay Support	144.9	144.9	144.6	0.2	144.8
Capital Outlay	472.6	472.6	472.6	0.1	472.7
Total	617.5	617.5	617.2	0.3	617.5
Richmond-San Rafael					
Capital Outlay Support	134.0	127.0	126.7	0.3	127.0
Capital Outlay	698.0	689.5	674.2	15.3	689.5
Project Reserves	82.0	-	-	-	-
Total	914.0	816.5	800.9	15.6	816.5
West Span Retrofit					
Capital Outlay Support	75.0	75.0	74.8	0.2	75.0
Capital Outlay	232.9	232.9	232.8	(5.3)	227.5
Total	307.9	307.9	307.6	(5.1)	302.5
West Approach					
Capital Outlay Support	120.0	117.0	117.9	0.1	118.0
Capital Outlay	309.0	350.7	342.5	(4.4)	338.1
Total	429.0	467.7	460.4	(4.3)	456.1
SFOBB East Span -Skyway					
Capital Outlay Support	197.0	181.2	181.3	(0.1)	181.2
Capital Outlay	1,293.0	1,254.1	1,368.4	(114.3)	1,254.1
Total	1,490.0	1,435.3	1,549.7	(114.4)	1,435.3
SFOBB East Span -SAS- Superstructure					
Capital Outlay Support	214.6	214.6	221.0	239.0	460.0
Capital Outlay	1,753.7	1,753.7	1,649.6	341.8	1,991.4
Total	1,968.3	1,968.3	1,870.6	580.8	2,451.4
SFOBB East Span -SAS- Foundations					
Capital Outlay Support	62.5	37.6	37.6		37.6
Capital Outlay	339.9	307.3	308.7	(1.4)	307.3
Total	402.4	344.9	346.3	(1.4)	344.9
Small YBI Projects					
Capital Outlay Support	10.6	10.6	10.1	0.5	10.6
Capital Outlay	15.6	15.6	16.6	(0.9)	15.7
Total	26.2	26.2	26.7	(0.4)	26.3
YBI Detour					
Capital Outlay Support	29.5	84.5	81.5	7.7	89.2
Capital Outlay	131.9	492.9	493.0	(6.7)	486.3
Total	161.4	577.4	574.5	1.0	575.5
YBI - Transition Structures					
Capital Outlay Support	78.7	78.8	16.4	103.6	120.0
Capital Outlay	299.4	206.3	126.6	93.6	220.2
Total	378.1	285.1	143.0	197.2	340.2

## Appendix A-2: TBSRP AB 144/SB 66 Baseline Budget, Forecasts and Expenditures through March 31, 2010 (\$ Millions) (continued)

		Expend	litures to date and	Estimated Cost	
			Encumbrances	not yet Spent	
	AB 144 Baseline	TBPOC Current	as of Mar 2010	or Encumbered	Total Forecast
Bridge	Budget	Approved Budget	See Note (1)	as of Mar 2010	as of Mar 2010
a	b	С	d	е	f = d + e
Oakland Touchdown					
Capital Outlay Support	74.4	84.6	74.4	20.8	95.2
Capital Outlay	283.8	288.0	218.0	65.0	283.0
Total	358.2	372.6	292.4	85.8	378.2
East Span Other Small Project					
Capital Outlay Support	212.3	206.5	211.9	(5.3)	206.6
Capital Outlay	170.8	170.8	94.0	52.6	146.6
Total	383.1	377.3	305.9	47.3	353.2
Existing Bridge Demolition					
Capital Outlay Support	79.7	60.9	0.4	61.4	61.8
Capital Outlay	239.2	239.1	-	232.4	232.4
Total	318.9	300.0	0.4	293.8	294.2
Antioch Bridge					
Capital Outlay Support	-	39.0	9.3	15.5	24.8
Capital Outlay Support by BATA			6.2	-	6.2
Capital Outlay	-	156.0	-	70.0	70.0
Total	-	195.0	15.5	85.5	101.0
Dumbarton Bridge					
Capital Outlay Support	-	95.0	15.2	81.9	97.1
Capital Outlay Support by BATA			6.0	-	6.0
Capital Outlay	-	270.0	0.3	171.6	171.9
Total	-	365.0	21.5	253.5	275.0
Miscellaneous Program Costs	30.0	30.0	25.4	4.6	30.0
Total Capital Outlay Support (2)	1,463.2	1,587.2	1,360.7	530.4	1,891.1
Total Capital Outlay	6,321.8	6,899.5	5,997.3	909.4	6,906.7
Program Total	7,785.0	8,486.7	7,358.0	1,439.8	8,797.8

<sup>(1).</sup> Funds allocated to project or contract for Capital Outlay and Support needs includes Capital Outlay Support total allocation for FY 06/07.

<sup>(2).</sup> BSA provided a distribution of program contingency in December 2004 based on Bechtel Infrastructure Corporation input. This column is subject to revision upon completion of Department's risk assessment update.

<sup>(3).</sup> Total Capital Outlay Support includes program indirect costs.

## Appendix B: TBSRP (SFOBB East Span Only) AB 144/SB 66 Baseline Budget, Forecasts and Expenditures through March 31 2010 (\$ Millions)

-	66 Budget (07/2005)	Approved Changes	Approved Budget (03/2010)	Cost To Date (03/2010)	Cost Forecast (03/2010)	At- Completion Variance
a	С	d	e = c + d	f	g	h = g - e
Can Francisco Oakland Day Pridge Fact Span Donlacoment						
San Francisco-Oakland Bay Bridge East Span Replacement  East Span - SAS Superstructure						
Capital Outlay Support	214.6	_	214.6	218.4	460.0	245.4
Capital Outlay Construction	1,753.7	-	1,753.7	979.8	1,991.4	243.4
Total	1,753.7		1,753.7	1,198.2	2,451.4	483.1
SAS W2 Foundations	1,700.3	-	1,700.3	1,190.2	2,431.4	403. 1
Capital Outlay Support	10.0	(0.8)	9.2	9.2	9.2	
	26.4	(0.6)	26.4	25.8	26.4	-
Capital Outlay Construction Total	36.4	(0.0)			35.6	-
YBI South/South Detour	30.4	(0.8)	35.6	35.0	33.0	-
	20.4	FF 1	04.5	00 F	00.0	47
Capital Outlay Support	29.4	55.1	84.5	80.5	89.2	4.7
Capital Outlay Construction	132.0	360.9	492.9	429.1	486.3	(6.6)
Total	161.4	416.0	577.4	509.6	575.5	(1.9)
East Span - Skyway	107.0	(15.0)	101.0	101.0	101.0	
Capital Outlay Support	197.0	(15.8)	181.2	181.2	181.2	-
Capital Outlay Construction	1,293.0	(38.9)	1,254.1	1,236.9	1,254.1	-
Total	1,490.0	(54.7)	1,435.3	1,418.1	1,435.3	-
East Span - SAS E2/T1 Foundations						-
Capital Outlay Support	52.5	(24.1)	28.4	28.4	28.4	-
Capital Outlay Construction	313.5	(32.6)	280.9	274.8	280.9	-
Total	366.0	(56.7)	309.3	303.2	309.3	-
YBI Transition Structures (see notes below)						
Capital Outlay Support	78.7	0.1	78.8	30.3	120.0	41.2
Capital Outlay Construction	299.3	(93.0)	206.3	1.1	220.2	13.9
Total	378.0	(92.9)	285.1	31.4	340.2	55.1
* YBI- Transition Structures Prior-to-Split Costs						
Capital Outlay Support			16.7	16.4	16.5	(0.2)
Capital Outlay Construction			-	-	-	-
Total			16.7	16.4	16.5	(0.2
* YBI- Transition Structures Contract No. 1						
Capital Outlay Support			45.1	9.8	69.7	24.7
Capital Outlay Construction			144.0	1.1	156.9	12.9
Total			189.1	10.9	226.6	37.6
* YBI- Transition Structures Contract No. 2						
Capital Outlay Support			16.0	4.1	32.8	16.8
Capital Outlay Construction			59.0	-	60.0	1.0
Total			75.0	4.1	92.8	17.8
* YBI- Transition Structures Contract No. 3 Landscape						
Capital Outlay Support			1.0	-	1.0	
Capital Outlay Construction			3.3	-	3.3	_
Total			4.3	-	4.3	_

# Appendix B: TBSRP (SFOBB East Span Only) AB 144/SB 66 Baseline Budget, Forecasts and Expenditures through March 31, 2010 (\$ Millions) (continued)

Contract	AB 144 / SB 66 Budget (07/2005)	Approved Changes	Current Approved Budget (03/2010)	Cost To Date (03/2010)	Cost Forecast (03/2010)	At- Completion Variance
a	С	d	e = c + d	f	g	h = g - e
Oakland Touchdown (see notes below)		40.0				40.4
Capital Outlay Support	74.4	10.2	84.6	72.9	95.2	10.6
Capital Outlay Construction	283.8	4.2	288.0	206.4	283.0	(5.0)
Total	358.2	14.4	372.6	279.3	378.2	5.6
* OTD Prior-to-Split Costs						
Capital Outlay Support			21.0	20.1	21.7	0.7
Capital Outlay Construction			-	-	-	-
Total			21.0	20.1	21.7	0.7
* OTD Submarine Cable						
Capital Outlay Support			0.9	0.9	0.9	-
Capital Outlay Construction			9.6	7.9	9.6	-
Total			10.5	8.8	10.5	-
* OTD No. 1 (Westbound)						
Capital Outlay Support			45.5	45.1	47.6	2.1
Capital Outlay Construction			212.0	198.5	211.2	(0.8)
T otal			257.5	243.6	258.8	1.3
* OTD No. 2 (Eastbound)						
Capital Outlay Support			15.8	6.2	23.5	7.7
Capital Outlay Construction			62.0	-	57.8	(4.2)
Total			77.8	6.2	81.3	3.5
* OTD Electrical Systems						
Capital Outlay Support			1.4	0.8	1.5	0.1
Capital Outlay Construction			4.4	-	4.4	-
Total			5.8	0.8	5.9	0.1
Existing Bridge Demolition						
Capital Outlay Support	79.7	(18.8)	60.9	0.4	61.8	0.9
Capital Outlay Construction	239.2	(0.1)	239.1	-	232.4	(6.7)
Total	318.9	(18.9)	300.0	0.4	294.2	(5.8)
YBI/SAS Archeology		( - /				(/
Capital Outlay Support	1.1	-	1.1	1.1	1.1	-
Capital Outlay Construction	1.1	_	1.1	1.1	1.1	_
Total	2.2	-	2.2	2.2	2.2	-
YBI - USCG Road Relocation	2.2		2,2	2.2	2.2	
Capital Outlay Support	3.0	_	3.0	2.7	3.0	_
Capital Outlay Construction	3.0	_	3.0	2.8	3.0	-
Total	6.0	_	6.0	5.5	6.0	_
YBI - Substation and Viaduct	0.0	-	0.0	5.5	0.0	•
Capital Outlay Support	6.5		6.5	6.4	6.5	
Capital Outlay Support  Capital Outlay Construction	11.6	-	11.6	11.3	11.6	-
Total	18.1	•	18.1	17.7	18.1	-
Oakland Geofill	16.1	-	10.1	17.7	10.1	-
	2.5		2 5	2 5	<b>7</b> E	-
Capital Outlay Support	2.5	-	2.5	2.5	2.5	-
Capital Outlay Construction	8.2	-	8.2	8.2	8.2	-
T otal	10.7	-	10.7	10.7	10.7	-

# Appendix B: TBSRP (SFOBB East Span Only) AB 144/SB 66 Baseline Budget, Forecasts and Expenditures through March 31, 2010 (\$ Millions) (continued)

			Current			
	AB 144 / SB		Approved		Cost	At-
	66 Budget	Approved	Budget	Cost To Date	Forecast	Completion
Contract	(07/2005)	Changes	(03/2010)	(03/2010)	(03/2010)	Variance
a	С	d	e = c + d	f	g	h = g - e
Pile Installation Demonstration Project						
Capital Outlay Support	1.8	-	1.8	1.8	1.8	-
Capital Outlay Construction	9.2	-	9.2	9.2	9.2	-
T otal	11.0	-	11.0	11.0	11.0	-
Stormwater Treatment Measures						
Capital Outlay Support	6.0	2.2	8.2	8.1	8.2	-
Capital Outlay Construction	15.0	3.3	18.3	16.7	18.3	-
Total	21.0	5.5	26.5	24.8	26.5	-
Right-of-Way and Environmental Mitigation						
Capital Outlay Support	-	-	-	-	-	-
Capital Outlay & Right-of-Way	72.4	-	72.4	51.2	72.4	-
Total	72.4	-	72.4	51.2	72.4	-
Sunk Cost - Existing East Span Retrofit						
Capital Outlay Support	39.5	-	39.5	39.5	39.5	-
Capital Outlay Construction	30.8	-	30.8	30.8	30.8	-
Total	70.3	-	70.3	70.3	70.3	-
Other Capital Outlay Support						
Environmental Phase	97.7	-	97.7	97.7	97.7	-
Pre-Split Project Expenditures	44.9	-	44.9	44.9	44.9	-
Non-project Specific Costs	20.0	(8.0)	12.0	3.2	12.0	-
Total	162.6	(8.0)	154.6	145.8	154.6	-
Subtotal Capital Outlay Support	959.3	-	959.3	829.2	1,262.2	302.9
Subtotal Capital Outlay Construction	4,492.2	203.8	4,696.0	3,285.2	4,929.3	233.3
Other Budgeted Capital	35.1	(3.3)	31.8	0.7	7.7	(24.1)
						-
Total SFOBB East Span Replacement Project	5,486.6	200.5	5,687.1	4,115.1	6,199.2	512.1

#### Appendix C: Regional Measure 1 Program Cost Detail (\$ Millions)

Contract	AB 144 / SB 66 Budget (07/2005)	Approved Changes	Current Approved Budget (03/2010)	Cost To Date (03/2010)	Cost Forecast (03/2010)	At- Completion Variance
a	С	d	e = c + d	f	g	h = g - e
Nou Ponicia Martinaz Bridga Project						
New Benicia-Martinez Bridge Project New Bridge						
Capital Outlay Support						
BATA Funding	84.9	6.9	91.8	91.8	91.8	_
Non-BATA Funding	-	0.1	0.1	0.1	0.1	_
Subtotal	84.9	7.0	91.9	91.9	91.9	_
Capital Outlay Construction	01.7	7.0	-	71.7	71.7	_
BATA Funding	661.9	94.6	756.5	753.8	756.5	_
Non-BATA Funding	10.1	-	10.1	10.1	10.1	_
Subtotal	672.0	94.6	766.6	763.9	766.6	_
Total	756.9	101.6	858.5	855.8	858.5	_
I-680/I-780 Interchange Reconstruction	700.7		333.3	000.0	555.5	
Capital Outlay Support						
BATA Funding	24.9	5.2	30.1	30.1	30.1	-
Non-BATA Funding	1.4	5.2	6.6	6.3	6.6	_
Subtotal	26.3	10.4	36.7	36.4	36.7	-
Capital Outlay Construction						
BATA Funding	54.7	26.9	81.6	77.1	81.6	-
Non-BATA Funding	21.6	-	21.6	21.7	21.7	0.1
Subtotal	76.3	26.9	103.2	98.8	103.3	0.1
Total	102.6	37.3	139.9	135.2	140.0	0.1
I-680/Marina Vista Interchange Reconstruction						
Capital Outlay Support	18.3	1.8	20.1	20.2	20.2	0.1
Capital Outlay Construction	51.5	4.9	56.4	56.1	56.4	-
Total	69.8	6.7	76.5	76.3	76.6	0.1
New Toll Plaza and Administration Building						
Capital Outlay Support	11.9	3.8	15.7	15.7	15.7	-
Capital Outlay Construction	24.3	2.0	26.3	25.1	26.3	-
Total	36.2	5.8	42.0	40.8	42.0	-
Existing Bridge & Interchange Modifications						
Capital Outlay Support						
BATA Funding	4.3	13.5	17.8	17.8	17.8	-
Non-BATA Funding	-	0.9	0.9	0.8	0.9	-
Subtotal	4.3	14.4	18.7	18.6	18.7	-
Capital Outlay Construction						
BATA Funding	17.2	32.8	50.0	37.0	50.0	-
Non-BATA Funding	-	9.5	9.5	-	9.5	-
Subtotal	17.2	42.3	59.5	37.0	59.5	-
Total	21.5	56.7	78.2	55.6	78.2	-
Other Contracts						
Capital Outlay Support	11.4	(2.3)	9.1	9.0	9.1	-
Capital Outlay Construction	20.3	3.3	23.6	17.5	23.6	-
Capital Outlay Right-of-Way	20.4	(0.1)	20.3	17.0	20.3	-
Total	52.1	0.9	53.0	43.5	53.0	-

Note: Details may not sum to totals due to rounding effects.

Appendix C: Regional Measure 1 Program Cost Detail (\$ Millions) (Continued)

Contract	AB 144 / SB 66 Budget (07/2005)	Approved Changes	Current Approved Budget (03/2010)	Cost To Date (03/2010)	Cost Forecast (03/2010)	At- Completion Variance
a	С	d	e = c + d	f	g	h = g - e
New Parisis Markings Dridge Decises agestioned						
New Benicia-Martinez Bridge Project continued	1EE 7	20.0	10// (	104.4	104.7	0.1
Subtotal BATA Capital Outlay Support	155.7	28.9	184.6	184.6	184.7	0.1
Subtotal BATA Capital Outlay Construction	829.9	164.5	994.4	966.6	994.4	-
Subtotal Capital Outlay Right-of-Way	20.4	(0.1)	20.3	17.0	20.3	-
Subtotal Non-BATA Capital Outlay Support	1.4	6.2	7.6	7.2	7.6	-
Subtotal Non-BATA Capital Outlay Construction	31.7	9.5	41.2	31.8	41.3	0.1
Project Reserves	20.8	3.6	24.4	-	24.2	(0.2)
Total New Benicia-Martinez Bridge Project	1,059.9	212.6	1,272.5	1,207.2	1,272.5	-
Notes:		0.0601 .00603 .00		00608_, 00609_,		. 0060E .
	0060F_, 0060G_					_/ 0000/
Carquinez Bridge Replacement Project						
New Bridge						
Capital Outlay Support	60.5	(0.3)	60.2	60.2	60.2	-
Capital Outlay Construction	253.3	2.7	256.0	255.9	256.0	-
Total	313.8	2.4	316.2	316.1	316.2	-
Crockett Interchange Reconstruction						
Capital Outlay Support	32.0	(0.1)	31.9	31.9	31.9	-
Capital Outlay Construction	73.9	(1.9)	72.0	71.9	72.0	-
Total	105.9	(2.0)	103.9	103.8	103.9	-
Existing 1927 Bridge Demolition						
Capital Outlay Support	16.1	(0.5)	15.6	15.7	15.7	0.1
Capital Outlay Construction	35.2	-	35.2	34.8	35.2	-
T otal	51.3	(0.5)	50.8	50.5	50.9	0.1
Other Contracts						
Capital Outlay Support	15.8	1.2	17.0	16.3	17.0	-
Capital Outlay Construction	18.8	(1.2)	17.6	16.2	17.6	-
Capital Outlay Right-of-Way	10.5	(0.1)	10.4	10.0	10.4	-
Total	45.1	(0.1)	45.0	42.5	45.0	-
C. L. L. DATA O. "L. O. II. C	404.4	0.0	1047	404.4	404.0	0.1
Subtotal BATA Capital Outlay Support	124.4	0.3	124.7	124.1	124.8	0.1
Subtotal BATA Capital Outlay Construction	381.2	(0.4)	380.8	378.8	380.8	-
Subtotal Capital Outlay Right-of-Way	10.5	(0.1)	10.4	10.0	10.4	-
Project Reserves	12.1	(9.8)	2.3	-	2.2	(0.1)
Total Carquinez Bridge Replacement Project	528.2	(10.0)	518.2	512.9	518.2	-
Notes:		0130A_, 0130C_		_, 01303_, 01304 30F_, 0130G_, 01		

Note: Details may not sum to totals due to rounding effects.

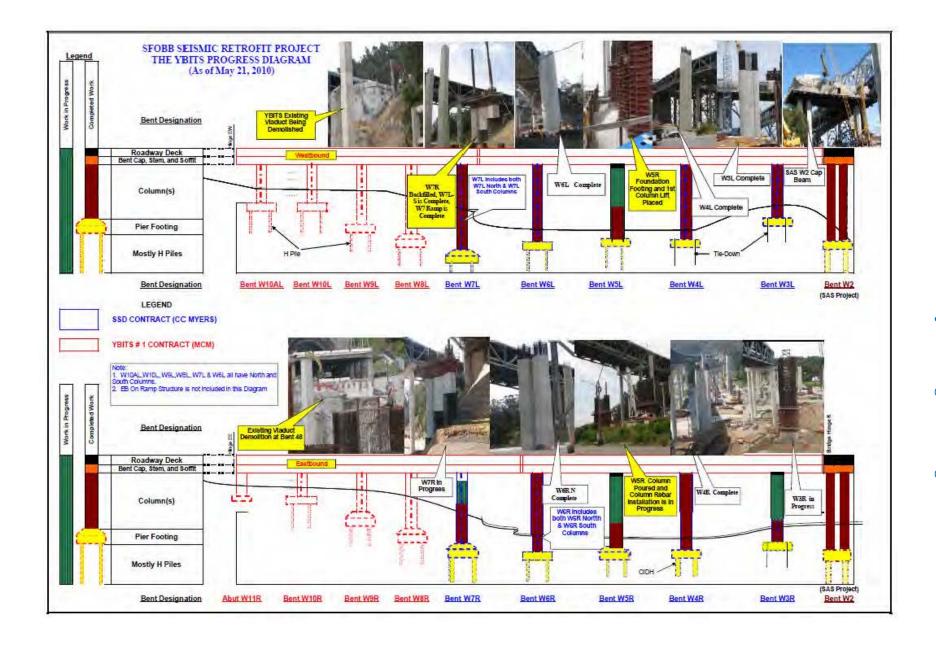
#### Appendix C: Regional Measure 1 Program Cost Detail (\$ Millions) (Continued)

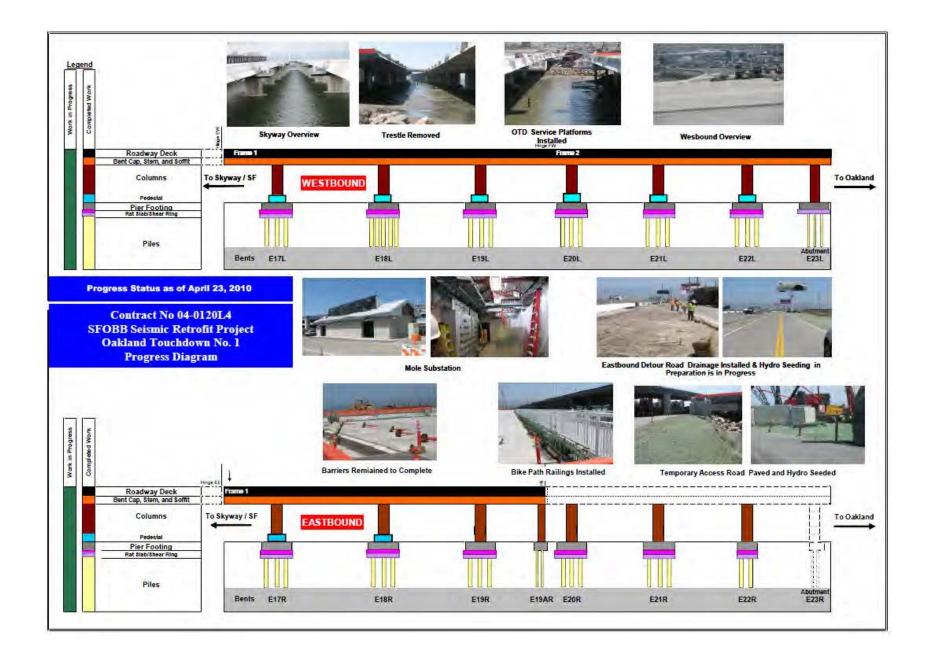
Contract	AB 144 / SB 66 Budget (07/2005)	Approved Changes	Current Approved Budget (03/2010)	Cost To Date (03/2010)	Cost Forecast (03/2010)	At- Completion Variance
a	С	d	e = c + d	f	g	h = g - e
Richmond-San Rafael Bridge Trestle, Fender, and Deck Joint F	Pehahilitation	See note ' belo	NA/			
Capital Outlay Support	Condomination	occitote bere	·••			
BATA Funding	2.2	(0.8)	1.4	1.4	1.4	-
Non-BATA Funding	8.6	1.8	10.4	10.4	10.4	-
Subtotal	10.8	1.0	11.8	11.8	11.8	-
Capital Outlay Construction						
BATA Funding	40.2	(6.8)	33.4	33.3	33.4	-
Non-BATA Funding	51.1	-	51.1	51.1	51.1	-
Subtotal	91.3	(6.8)	84.5	84.4	84.5	-
Project Reserves	-	0.8	0.8	-	0.8	-
Total	102.1	(5.0)	97.1	96.2	97.1	-
Richmond-San Rafael Bridge Deck Overlay Rehabilitation						
Capital Outlay Support						
BATA Funding	4.0	(0.7)	3.3	3.3	3.3	-
Non-BATA Funding	4.0	(4.0)	-	-	-	-
Subtotal	8.0	(4.7)	3.3	3.3	3.3	-
Capital Outlay Construction	16.9	(0.6)	16.3	16.3	16.3	-
Project Reserves	0.1	0.3	0.4	-	0.4	-
Total	25.0	(5.0)	20.0	19.6	20.0	-
Richmond Parkway Project (RM 1 Share Only)						
Capital Outlay Support	-	-	-	-	-	-
Capital Outlay Construction	5.9	-	5.9	4.3	5.9	-
Total	5.9	-	5.9	4.3	5.9	-
San Mateo-Hayward Bridge Widening						
Capital Outlay Support	34.6	(0.5)	34.1	34.1	34.1	-
Capital Outlay Construction	180.2	(6.1)	174.1	174.1	174.1	-
Capital Outlay Right-of-Way	1.5	(0.9)	0.6	0.5	0.6	-
Project Reserves	1.5	(0.5)	1.0	-	1.0	-
Total	217.8	(8.0)	209.8	208.7	209.8	-
I-880/SR-92 Interchange Reconstruction						
Capital Outlay Support	28.8	34.6	63.4	52.6	63.4	-
Capital Outlay Construction						
BATA Funding	85.2	66.2	151.4	92.5	151.4	-
Non-BATA Funding	9.6	-	9.6	-	9.6	-
Subtotal	94.8	66.2	161.0	92.5	161.0	-
Capital Outlay Right-of-Way	9.9	7.0	16.9	12.0	16.9	-
Project Reserves	0.3	3.4	3.7	-	3.7	-
Total	133.8	111.2	245.0	157.1	245.0	-
Bayfront Expressway Widening						
Capital Outlay Support	8.6	(0.2)	8.4	8.3	8.4	-
Capital Outlay Construction	26.5	(1.5)	25.0	24.9	25.0	-
Capital Outlay Right-of-Way	0.2	-	0.2	0.2	0.2	-
Project Reserves	0.8	(0.3)	0.5	-	0.5	-
Total	36.1	(2.0)	34.1	33.4	34.1	-

Notes: 2Details may not sum to totals due to rounding effects.

#### Appendix C: Regional Measure 1 Program Cost Detail (\$ Millions) (Continued)

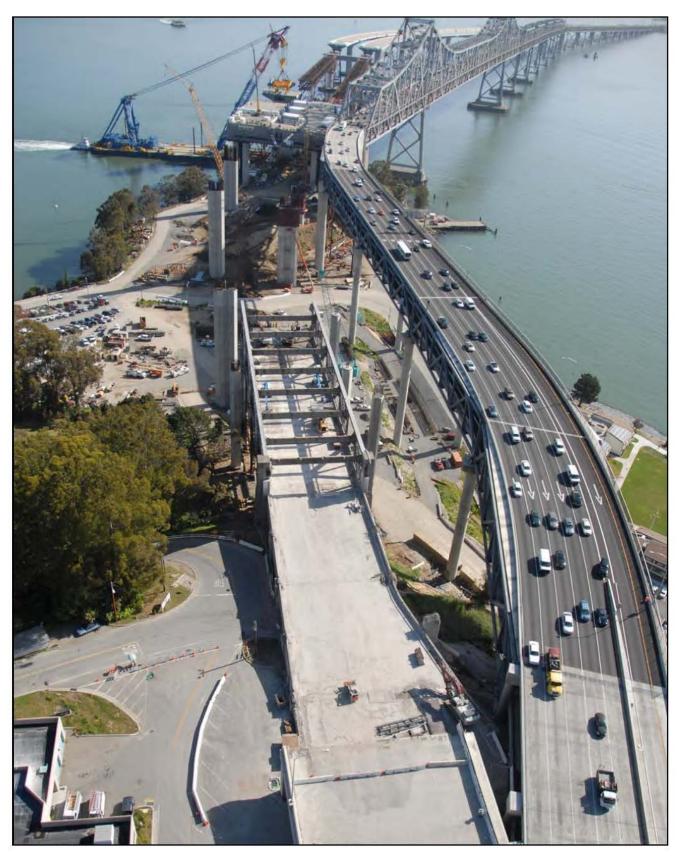
			Current			
	AB 144 / SB		Approved		Cost	At-
	66 Budget	Approved	Budget	Cost To Date	Forecast	Completion
Contract	(07/2005)	Changes	(03/2010)	(03/2010)	(03/2010)	Variance
a	С	d	e = c + d	f	g	h = g - e
US 101/University Avenue Interchange Modification						
US 101/University Avenue Interchange Modification						
Capital Outlay Support	-	-	-	-	-	-
Capital Outlay Construction	3.8	-	3.8	3.7	3.8	-
Total	3.8	-	3.8	3.7	3.8	-
Subtotal BATA Capital Outlay Support	358.3	61.6	419.9	408.4	420.1	0.2
Subtotal BATA Capital Outlay Construction	1,569.8	215.3	1,785.1	1,694.5	1,785.1	-
Subtotal Capital Outlay Right-of-Way	42.5	5.9	48.4	39.7	48.4	-
Subtotal Non-BATA Capital Outlay Support	14.0	4.0	18.0	17.6	18.0	-
Subtotal Non-BATA Capital Outlay Construction	92.4	9.5	101.9	82.9	102.0	0.1
Project Reserves	35.6	(2.5)	33.1	-	32.8	(0.3)
Total RM1 Program	2,112.6	293.8	2,406.4	2,243.1	2,406.4	-
Notes:	1 Richmond-Sa	an Rafael Bridg	je Trestle, Fen	der, and Deck Jo	oint Rehabilita	ation Includes
	Non-TBSRA E	xpenses for EA	0438U_ and 04	4157_		
	2 San Mateo-Ha	ayward Bridge	Widening Incl	udes EA's 00305	_, 04501_, 045	02_, 04503_,
	04504_, 04505_	, 04506_, 04507_	_, 04508_, 0450	9_, 27740_, 2779	0_, 04860_	



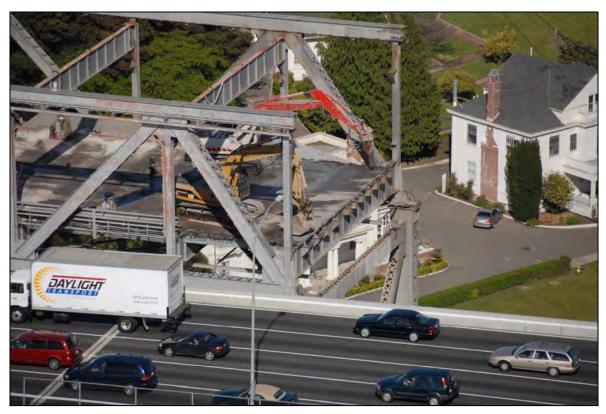




#### Yerba Buena Island Detour Existing Bridge Demolition



Existing Bridge Demolition Progress on Left, Temporary Detour on Right and Left Coast Lifter Placing a Roadway Box onto the Temporary Structures



Aerial of Existing Bridge Demolition



Aerial View of Demolition of Existing Bridge

#### Self-Anchored Suspension Bridge Fabrication



SAS - Overview of Roadway Box 11 & 12 East Line Assembly in Bay 14



SAS - Roadway Box 13 Constructability Model in Bay 13



SAS - Internal Splice Plate Being Fitted to Skin D of Tower Box 4 East Shaft



SAS - Crossbeam 15 Assembly in Bay 1

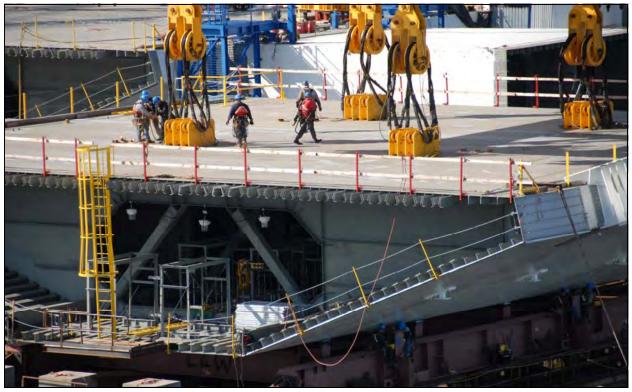
#### Self-Anchored Suspension Bridge Field Work



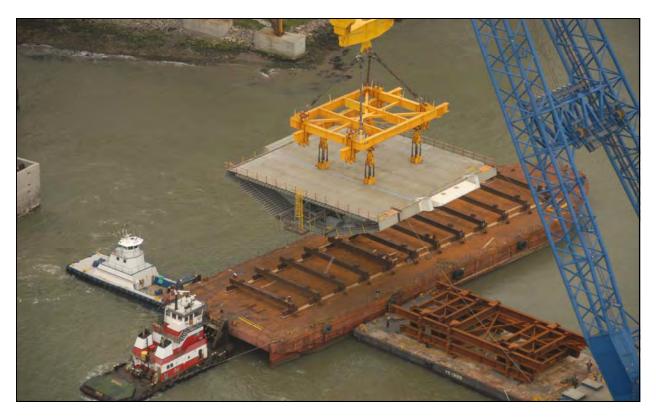
SAS - Roadway Box 4 West Being Placed on Temporary Support Structures



SAS - Roadway Box 4 West Being Placed on Temporary Support Structures



SAS - Positioning Roadway Box 4 West onto the Temporary Support Structures



SAS - Roadway Box 4 West Being Lifted onto the Temporary Support Structures

#### Self-Anchored Suspension Bridge Field Work (cont.)



SAS-Offloading Roadway Box 5 East



SAS - Offloading Roadway Box 5 East



SAS- Offloading Crossbeam



SAS- Arrival of Roadway Box 5 and 6 East and West Shipment #2



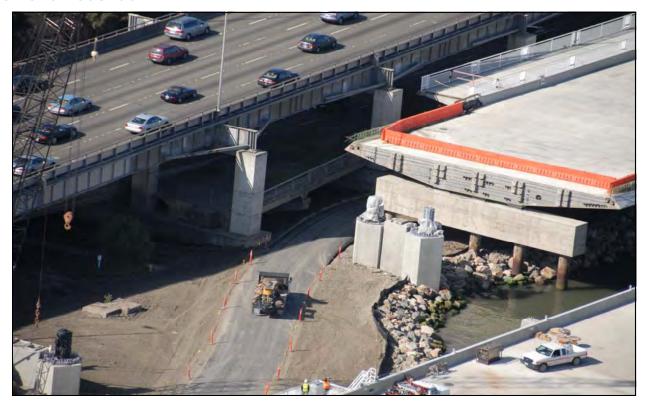




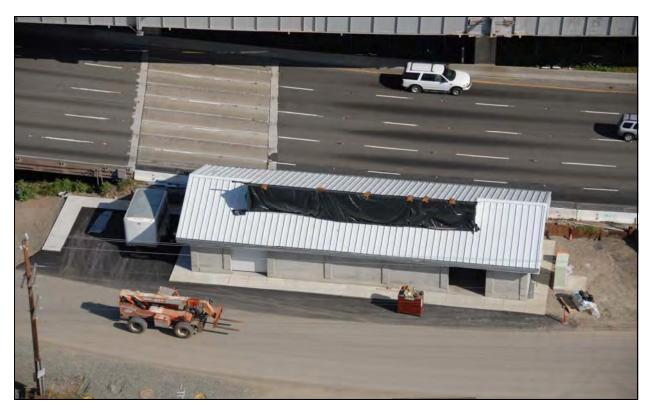


## Appendix F: Project Progress Photographs

### Oakland Touchdown



Oakland Touchdown #1 Overview of Completed Temporary Access Road OTD #1



Oakland Touchdown #1 Mole Substation Exterior Aerial View



Oakland Touchdown #1 Looking West



Oakland Touchdown #1 Looking East

# Appendix F: Project Progress Photographs

## 92/880 Interchange



92/880 Site Preparation of New Route 92 and Interstate 880 Separator



92/880 Widening at Mount Eden Overhead Crossing





#### Appendix G: Glossary of Terms

AB144/SB 66 BUDGET: The planned allocation of resources for the Toll Bridge Seismic Retrofit Program, or subordinate projects or contracts, as provided in Assembly Bill 144 and Senate Bill 66, signed into law by Governor Schwarzenegger on July 18, 2005 and September 29, 2005, respectively.

**BATA BUDGET:** The planned allocation of resources for the Regional Measure 1 Program, or subordinate projects or contracts as authorized by the Bay Area Toll Authority as of June 2005.

APPROVED CHANGES: For cost, changes to the AB144/SB 66 Budget or BATA Budget as approved by the Bay Area Toll Authority Commission. For schedule, changes to the AB 144/SB 66 Project Complete Baseline approved by the Toll Bridge Program Oversight Committee, or changes to the BATA Project Complete Baseline approved by the Bay Area Toll Authority Commission.

**CURRENT APPROVED BUDGET:** The sum of the AB144/SB66 Budget or BATA Budget and Approved Changes.

**COST TO DATE**: The actual expenditures incurred by the program, project or contract as of the month and year shown.

**COST FORECAST:** The current forecast of all of the costs that are projected to be expended so as to complete the given scope of the program, project, or contract.

**AT COMPLETION VARIANCE or VARIANCE (cost):** The mathematical difference between the Cost Forecast and the Current Approved Budget.

AB 144/SB 66 PROJECT COMPLETE BASELINE: The planned completion date for the Toll Bridge Seismic Retrofit Program or subordinate projects or contracts.

**BATA PROJECT COMPLETE BASELINE**: The planned completion date for the Regional Measure 1 Program or subordinate projects or contracts.

**PROJECT COMPLETE CURRENT APPROVED SCHEDULE**: The sum of the AB144/SB66 Project Complete Baseline or BATA Project Complete Baseline and Approved Changes.

**PROJECT COMPLETE SCHEDULE FORECAST:** The current projected date for the completion of the program, project, or contract.

**SCHEDULE VARIANCE or VARIANCE (schedule):** The mathematical difference expressed in months between the Project Complete Schedule Forecast and the Project Complete Current Approved Schedule.

**COMPLETE:** % Complete is based on an evaluation of progress on the project, expenditures to date, and schedule.



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The information in this report is provided in accordance with California Government code Section 755. This document is one of a series of reports prepared for the Bay Area Toll Authority (BATA)/Metropolitan Transportation Commission (MTC) for the Toll Bridge Seismic Retrofit and Regional Measure 1 Programs. The contract value for the monitoring efforts, technical analysis, and field site works that contribute to these reports, as well as the report preparation and production is \$1,574,873.73.







TO: Toll Bridge Program Oversight Committee DATE: May 26, 2010

(TBPOC)

FR: Ken Terpstra, SFOBB East Span Project Manager, Caltrans

RE: Agenda No. - 4a

**Program Issues** 

Item- West Approach Landscaping PS&E

#### **Recommendation:**

For Information Only

Cost:

N/A

### **Schedule Impacts:**

N/A

#### **Discussion:**

This is a landscape project for the West Approach, from Fifth Street to the West Anchorage of the San Francisco-Oakland Bay Bridge at Beale Street. This project proposes a small public plaza at Fifth Street and a dog park at the intersection of Beale and Bryant Streets. The scope of work includes retaining walls, planters and bollards spaced in between walls, decorative paving, fencing, site furnishings and lighting. The project also includes landscaping at Fourth and Fifth Streets. The estimate is \$4.3 million including a 10% project contingency. This is a 200-working day construction contract with three-year plant establishment services.

PS&E has been submitted to Headquarters Office Engineer on April 20, 2010 and the project is scheduled to be advertised on July 21, 2010.

#### Attachment(s):



TO: Toll Bridge Program Oversight Committee DATE: May 26, 2010

(TBPOC)

FR: Brian Maroney, Toll Bridge Deputy Program Manager, Caltrans

RE: Agenda No. - 5a1

Item- San Francisco-Oakland Bay Bridge Updates

Self-Anchored Suspension (SAS) Superstructure Update

#### Recommendation:

For Information Only

Cost:

N/A

#### **Schedule Impacts:**

N/A

#### Discussion:

A verbal update on the Self-Anchored Suspension (SAS) Superstructure contract will be provided at the June 3<sup>rd</sup> meeting.

#### Attachment(s):



TO: Toll Bridge Program Oversight Committee DATE: May 26, 2010

(TBPOC)

FR: Brian Maroney, Toll Bridge Deputy Program Manager, Caltrans

RE: Agenda No. - 5a2

Item- San Francisco-Oakland Bay Bridge Updates

Self-Anchored Suspension (SAS) Superstructure Update

#### **Recommendation:**

For Information Only

#### Cost:

N/A

#### **Schedule Impacts:**

N/A

#### Discussion:

A possible visit to the Bay Area by Mr. Kang of ZPMC will be discussed at the June 3<sup>rd</sup> meeting.

#### Attachment(s):



TO: Toll Bridge Program Oversight Committee DATE: May 26, 2010

(TBPOC)

FR: Brian Maroney, Toll Bridge Deputy Program Manager, Caltrans

RE: Agenda No. - 5b1

Item- San Francisco-Oakland Bay Bridge Updates

Yerba Buena Island Detour Update

#### **Recommendation:**

For Information Only

#### Cost:

N/A

#### **Schedule Impacts:**

N/A

#### Discussion:

A verbal update on the Yerba Buena Island Detour contract will be provided at the June 3<sup>rd</sup> meeting.

#### Attachment(s):



TO: Toll Bridge Program Oversight Committee DATE: May 26, 2010

(TBPOC)

FR: Brian Maroney, Toll Bridge Deputy Program Manager, Caltrans

RE: Agenda No. - 5c1

Item- San Francisco-Oakland Bay Bridge Updates

Yerba Buena Island Transition Structures No. 1 Update

#### **Recommendation:**

For Information Only

#### Cost:

N/A

### **Schedule Impacts:**

N/A

#### Discussion:

A verbal update on the Yerba Buena Island Transition Structures No. 1 contract will be provided at the June 3<sup>rd</sup> meeting.

#### Attachment(s):



TO: Toll Bridge Program Oversight Committee DATE: May 26, 2010

(TBPOC)

FR: Brian Maroney, Toll Bridge Deputy Program Manager, Caltrans

RE: Agenda No. - 5d1

Item- San Francisco-Oakland Bay Bridge Updates

Oakland Touchdown No. 1 Update

#### **Recommendation:**

For Information Only

#### Cost:

N/A

### **Schedule Impacts:**

N/A

#### Discussion:

A verbal update on the Oakland Touchdown No. 1 contract will be provided at the June 3<sup>rd</sup> meeting.

#### Attachment(s):



TO: Toll Bridge Program Oversight Committee DATE: May 26, 2010

(TBPOC)

FR: Jason Weinstein, Senior Program Coordinator, BATA

Mo Pazooki, Project Manager, Caltrans

RE: Agenda No. - 6a

Item- Dumbarton Bridge Addendum #2

#### **Recommendation:**

**APPROVAL** 

**Cost:** 

N/A

#### **Schedule Impacts:**

N/A

#### **Discussion:**

There are currently 9 prospective bidders, 3 of which requested a time extension of the May 25, 2010 bid opening date. The time extension requested stems from Addendum No. 1 (removal of the concrete collar and bent cap work). The time requested will allow prospective bidders more time to fully evaluate this balance of work due of the removal of these items and their affect on potential prime contractors. This extension was discussed and accepted by the PMT on May 17, 2010. In the interest of time and, to allow the Department to respond to bidders, the PMT members discussed this addendum with their respective TBPOC members to gain concurrence.

In addition to changing the bid opening from May 25 to June 15, staff has added some additional changes which will not require additional time to review, they are:

- Requirement of a safety and health manager for the contractor
- Minor revisions to the maintaining traffic and scheduling requirements
- Modify several plan sheets and specifications as a result of bidder inquiries

Staff has placed this item on the TBPOC agenda to obtain formal approval for Addendum No. 2 documents.

#### Attachment(s):

1. Department Addendum Request No. 2 for Contract 04-1A5224

Flex your power! Be energy efficient!

To:

IGNACIO SANCHEZ DEL REAL

Office Chief

Office of Plans Specifications and Estimate

Attn:

LEO MARTINEZ

Deputy District Director - Design

May 18, 2010

04-253-1A5224 File:

> 04-SM-84-28.8/30.2 04-ALA-84-0.0/0.8 Dumbarton Bridge

Concurred By:

District Office Engineer

Subject: Addendum Request No. 2 for Contract 04-1A5224

As directed by the Toll Bridge Program Oversight Committee (TBPOC), the District requests that an addendum be issued to:

- Incorporate new provisions for safety and health manager, document management system and electronic data delivery for daily diary
- Revise provisions for maintaining traffic, progress schedule (critical path method), State owned catwalks and water pollution control
- Clarify Structure plans and special provisions per bidder's inquires
- Correct erroneous revisions made to several stage construction plans by addendum #1
- Change bid opening date.

Full-time safety and health manager provided by the Contractor is needed to ensure ongoing and consistent compliance with safety and health requirements, laws and regulations on permanent basis. The cost of this work is included into various items of work involved and is expected to increase construction costs for about \$300,000.

Document management system and electronic data delivery for daily diary is needed to establish effective procedures for submittals and management of construction related data and documents. Estimated cost of these two new items is \$650,000.

Maintaining traffic provisions need to be revised to make the number of days freeway is to be signed ahead of complete closure consistent with TMP requirements.

Introduction of penalties for missing or late submittals of progress schedule (critical path method) is needed to ensure timely submittals of progress schedules.

Correction of minor error in a description of State owned catwalk decking is needed to address bidder's inquiry and would not have been requested for this change alone.

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Requiring water pollution control manager to perform his or her duties on a full-time basis is needed to ensure ongoing and consistent compliance with water quality requirements on permanent basis. The cost of this work is included into various items of work involved and is expected to increase construction costs for about \$150,000.

Clarifications of Structure plans and special provisions are needed to address recent bidder's inquires regarding limits of Ravenswood Pier removal, issues related to raising the bridge, coring and bonding dowels, preparation of concrete surfaces and other issues.

The proposed addendum should address the following items:

#### PROJECT PLANS:

#### ROADWAY:

1) Project Plan Sheets 64, 65, 66, 67, 69, 72, 73, 74, 75 are revised and will be resubmitted electronically to HQ OE.

#### STRUCTURES:

- Project Plan Sheets 191, 192 and 193 are revised and will be submitted electronically to DES-OE.
- 2) On project Plan Sheet 213, add the following note to Section C-C:

"A construction joint is allowed at the top of the web to top slab interface, typical."

3) On project Plan Sheet 259, add the following note:

"Existing concrete surface in contact with new concrete should be free of laitance with surface roughened to an amplitude of 0.25 inches."

#### SPECIAL PROVISIONS:

- In the "Notice to Bidders", page 1, bid opening date is changed from Tuesday, May 25, 2010, to Tuesday, June 15, 2010.
- 2) "Copy of Bid Items List" is revised as follows:
  - New nonstandard lump sum item 070030A "Document Management System"
  - New nonstandard lump sum item 070031A "Electronic Data Delivery for Daily Diary".
- 3) In Section 5-1.10 "Payments", new line is added to the list of items eligible for the partial payments:
  - "O. Document Management System"
- Replace Section 10-1.03 "Water Pollution Control". Electronic file of the revised section is attached.
- Add Section "Safety and Health Manager" after Section 10-1.04 "Construction Site Management". Electronic file of the proposed new section is attached.

- 6) In Section 10-1.22 "Progress Schedule (Critical Path Method)", subsection "Payment", last paragraph (No. 39 of SSP 08-012) is replaced as follows:
  - "The Department will retain an amount equal to 25 percent of the estimated value of the work performed during the first estimate period in which you fail to submit a baseline or updated CPM schedule conforming to the requirements of this section, as determined by the Engineer. Thereafter, on subsequent successive estimate periods the percentage the Department will retain will be increased at the rate of 25 percent per estimate period in which acceptable CPM progress schedules have not been submitted to the Engineer. Retention for failure to submit acceptable CPM progress schedules shall be additional to all other retention provided for in the contract. The retention for failure to submit acceptable CPM progress schedules will be released for payment on the next monthly estimate for partial payment following the date that acceptable CPM progress schedules are submitted to the Engineer.

The adjustment provisions in Section 4-1.03, "Changes," of the Standard Specifications, shall not apply to the item of progress schedule (critical path method). Adjustments in compensation for the project schedule will not be made for any increased or decreased work ordered by the Engineer in furnishing project schedules."

- Add Section "Document Management System" after Section 10-1.24 "Small Business Utilization Report". Electronic file of the proposed new section is attached.
- 8) Add Section "Electronic Data Delivery for Daily Diary" after new Section "Document Management System". Electronic file of the proposed new section is attached.
- In Section 10-1.27 "Maintaining Traffic", number of days to sign freeway in advance of complete closure is changed from 7 to 10.
- 10) In Section 10-1.36 "Existing Highway Facilities", subsection "State Owned Catwalks", in Para 5, in line 2, words "timber decking" are replaced with "metal grating".
- 11) Delete section 10-1.54 "Core and Bond Dowels".
- 12) In Section 10-1.59 "Raise Bridge", subsection "General", in first paragraph, add the following after the first sentence:

"Jacking sequence shall not begin at Pier 23 or Pier 24."

If you have any questions, please contact Mo Pazooki at (510) 286-5118.

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cc: TAnziano, BMaroney, MPazooki, JTapping, SHulsebus, MWhiteside, SMargaris, ABata, BGhafghazi, JUozumi, JProkop, HSyed, TMasroor, SPawar, File



TO: Toll Bridge Program Oversight Committee DATE: May 26, 2010

(TBPOC)

FR: Jason Weinstein, Senior Program Coordinator, BATA

Mo Pazooki, Project Manager, Caltrans

**RE:** Agenda No. - 6b

Item- Antioch Bridge Update

#### **Recommendation:**

Information

#### **Cost:**

N/A

#### **Schedule Impacts:**

N/A

#### **Discussion:**

#### <u>General</u>

The construction contract with California Engineering Contractors, Inc. (CEC) of Pleasanton, CA was approved by the Department on May 19, 2010. The first official working day will be on July 13, 2010.

#### Environmental

The nesting bird deterrence work being performed by H.T. Harvey and Associates, which is compensated through capital outlay support, will continue until CEC mobilizes and beings field work in July 2010.

### **Bearings**

A contract between CEC and the bearing manufacturer, Earthquake Protection Systems, Inc. (EPS) was executed on April 26, 2010. The Department met with CEC and EPS on May 13, 2010. This meeting let to a better understanding of when the first bearings will be completed and ready for shipment to the University of California San Diego, (UCSD) where quality assurance (QA) testing will take place. Ten percent of the total bearings for the contract will be sent to UCSD for QA testing. The first bearings will be ready to ship to UCSD approximately 22 weeks after the contract was executed with CEC which



puts the first bearings shipping to UCSD the week of September 27, 2010, which is well before they are needed for incorporation in the retrofit work.

Attachment(s):

# **ITEM 7: OTHER BUSINESS**

No Attachments